

## Release of the Quayside Master Innovation and Development Plan

### ISSUE

- The expected public release of the draft Quayside Master Innovation and Development Plan (MIDP) on June 24, 2019

### UPDATE

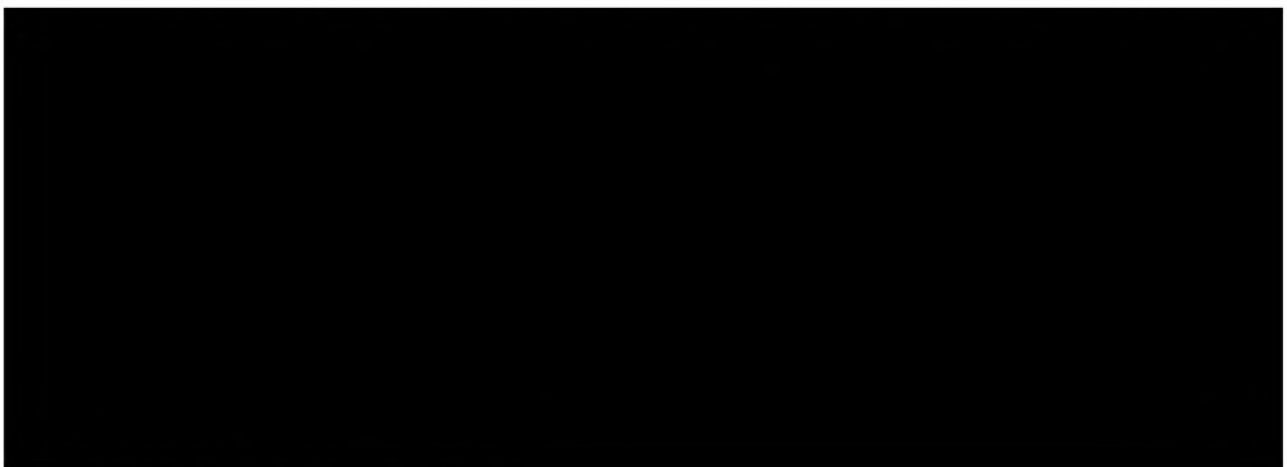
- Sidewalk Labs delivered the draft MIDP to Waterfront Toronto on June 17, 2019
- Waterfront has facilitated government partner access to a secure, online version of the Plan and delivered a hard copies on June 18<sup>th</sup>
- Waterfront is planning to release an Op-Ed on June 20<sup>th</sup> outlining its history and purpose, successes to date and its experience in leading public engagement
- Waterfront committed to releasing the draft MIDP within a week of receipt meaning it will be **made public on June 24<sup>th</sup>** following a media lock-up/technical briefing
- As anticipated, the draft MIDP is approximately 1,500 pages in its entirety and consists of four volumes centred around:
  - I. overview of the project context and key highlights of volumes II-IV
  - II. infrastructure and real-estate development plans at different scales;
  - III. innovative urban solutions; and
  - IV. business terms, financial/commercial considerations, and roles and responsibilities
- A “note to reader” is being prepared by Waterfront to help the public navigate the MIDP. It will also highlight where the MIDP diverges from Waterfront’s objectives, and flag where Waterfront sees regulatory and implementation challenges.

### INITIAL CONTENT OVERVIEW

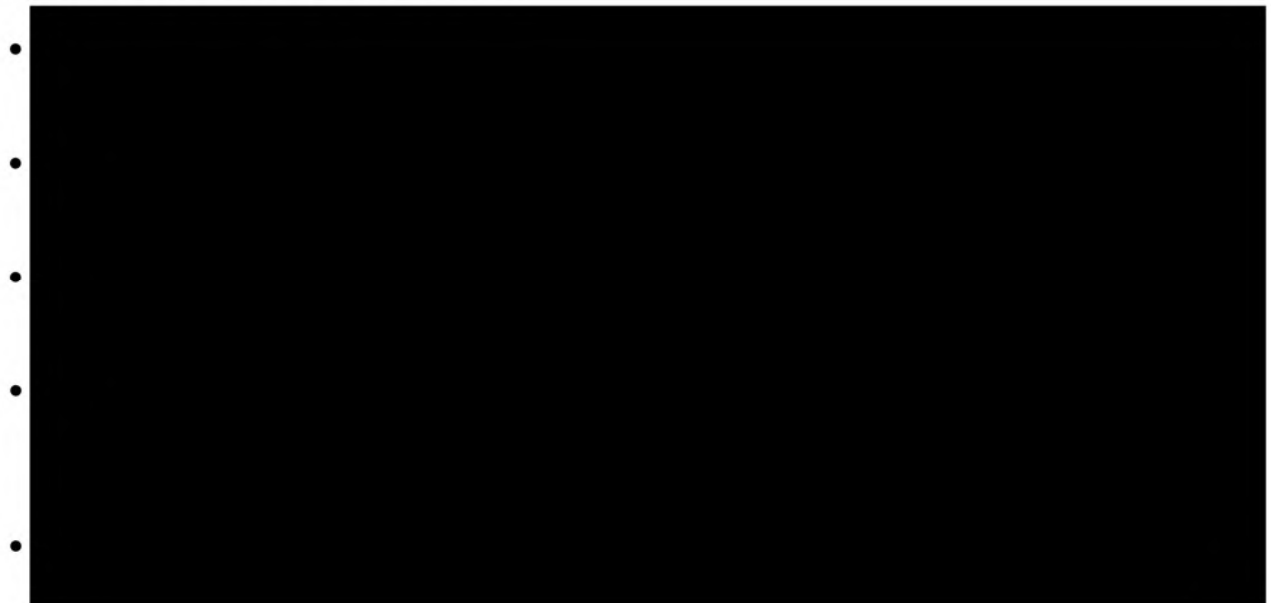
- Following an initial scan of the document, there are a number of elements with apparent **federal touchpoints**, including but not limited to:
  - **digital and data-related proposals**, including as they align with existing privacy legislation and Canada’s new Digital Charter
  - **creation of an IDEA District** within the greater waterfront area, operating under an “innovation framework” (including targeted regulatory adjustments) and allowed priority consideration in seeking government approvals



- **future role of Waterfront**, as a tri-government agency, in relation to the five "management entities" contemplated by Sidewalk to lead and administer project implementation (such as the Urban Data Trust)
- **public transit financing** for an eastern waterfront Light Rail Transit extension
- **government support for affordable housing** to maximize the number of below-market housing units available
- **intellectual property** and supports or capacity to build and retain locally
- **profit-sharing** agreement with Sidewalk Labs, where government(s) would receive 10% of profits for certain technologies developed within the IDEA district when sold in other cities
- **tall timber** buildings (touches on federal building codes/regulation)
- **reconciliation objectives** as advanced through the development of a contemporary city that supports urban Indigenous prosperity and opportunity



#### KEY CONSIDERATIONS/MESSAGES





**Page 3  
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pursuant to paragraphs  
21(1)(a) & 21(1)(b)  
of the *Access to Information Act***

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**La page 3  
Font l'objet d'une exception totale  
conformément aux dispositions des  
paragraphes  
21(1)(a) & 21(1)(b)  
de la *loi sur l'accès à l'information***



## Volume 0

Page No.	Quote
<b>Federal</b>	
p. 157	"In recent years, all three levels of government in Canada have recognized the importance of inclusive growth. These efforts have included federal investment in public transit and affordable housing..."
p. 161	"A fully developed IDEA district would have the capacity to produce this annual benefit across municipal, provincial and federal jurisdictions."
<b>Canada</b>	
p. 170	"the full scale of the IDEA district would result in 93,000 total jobs (including 44,000 direct jobs) and \$14.2 billion in economic output for Canada each year (GDP), including \$11.8 billion in Toronto, representing a 178 percent increase in value added to the Canadian economy compared to status quo development at completion."
p. 171	"At the full proposed scale, the IDEA district would become one of the largest construction projects in the world. Canada is poised to become a global leader in a sustainable new construction industry focused on mass timber..."
p. 206	"Sidewalk Labs would foster an urban innovation ecosystem open to entrepreneurs and inventors from across Canada and around the world, and work with the governments to design a structure to support Canada's capacity to build and retain intellectual property locally."
<b>Government</b>	
p. 37	<p>"By its 2040 completion, the project would create 93,000 total jobs (including 44,000 direct jobs) and become a tremendous revenue source for government, generating \$4.3 billion in annual tax revenue and \$14.2 billion in annual GDP"</p> <p>"...proposed role is to support the public sector and create the conditions for others to thrive...This plan proposes a limited role for Sidewalk Labs with government in the lead."</p>
p. 64	"Sidewalk Labs [is] uniquely suited to pursue longer-term returns, conduct far more robust research and development than a typical real estate developer, and build foundational pieces of urban technology that neither the market nor government can or will..."
p. 73	"Generating \$1.4 billion in private funding for below-market housing, supporting an ambitious housing vision with the potential to create 13,600 below market units (with additional government support)"
p. 78	<p>"Theme 4: Make sure the public sector has a strong role</p> <p>While some were excited about the potential of a private company to improve government responsiveness, others were concerned that the project would lead to the privatization of public services. The Residents Reference Panel noted that, historically, government has not kept up with the rapid pace of technological innovation and may not be able to provide appropriate oversight of the project."</p>



p. 237	<p>"The MIDP proposes a two-pronged test to distinguish technologies used in the project that would be developed by Sidewalk Labs in the normal course...For a product that passes that test, the MIDP proposes that the public sector receive 10-percent of profits over a 10-year period following the sale of the product to a second customer."</p> <p>"Unable to find any precedent for this kind of profit-sharing arrangement with government. In and of itself it would represented an innovative approach to the public and private sectors, partnering not only to create technology, but to jointly reap the proceeds from success."</p>
Pg. 221	"For certain technologies, SWL proposes to share 10 percent of the profits with the public sector when that product is sold in other cities."
<b>Privacy</b>	
<b>PIPEDA</b>	
<b>Legislation</b>	
<b>Regulation/Regulatory</b>	
<b>Governance/ Administrators</b>	
p. 208	<p><u>"Governance: Designate a district administrator.</u></p> <p>A project of this scope, complexity and duration requires strong public oversight and a regulatory framework predisposed to new approaches. Building on</p>



	Canada's success with targeted geographic governance strategies, the proposal calls for government to designate a public entity to serve – or in the case of Waterfront Toronto, continue to server – as revitalization lead for the IDEA district with certain additional powers.
	A carefully targeted package of regulatory reforms and development standards would apply in the IDEA district. Under this approach, this public administrator would be empowered to hold Sidewalk Labs and others working in the district accountable for performance, steer innovation strategy and oversee the governance structures needed to manage new district systems."
p. 93	"A public administrator and the three orders of government would determine whether to extend the IDEA district beyond Quayside and VW. At its full anticipated scope, the IDEA district would consist of seven neighbourhoods."
p. 191	"Sidewalk Labs proposes that urban data be controlled by an independent entity called the Urban Data Trust charged with balancing the interests of personal privacy, public interest and innovation. This independent, government-snactioned steward would establish a clear process for approving any initiatives that involve the use or collection of urban data for all parties..."
<b>Approval</b>	
p. 86	"Should both parties agree to move forward, individual components would be subject to relevant municipal, provincial and federal approvals."
<b>Public Funding</b>	
p. 208	<p>"First Sidewalk Labs expects to purchase (or long-term lease) the land in Quayside and Villiers West from Waterfront Toronto at a price such that the innovation risk and cost would be borne by Sidewalk Labs, but that also fairly accounts for the heightened public policy outcomes required, such as levels of sustainability and affordability unprecedented in any commercial development.</p> <p>Second, Sidewalk Labs expects to be reimbursed, over time, for its advisory and implementation services and repaid for optional financing or credit support for transit and municipal infrastructure. The financing would be repaid at a fixed annual rate of return at market rates to be negotiated – with a commitment from Sidewalk Labs to work with government, pension funds, and other institutional investors to develop transaction structures to reduce the rate as low as possible while still attracting the necessary financing.</p> <p>Finally, Sidewalk Labs is seeking performance payments for serving as a catalyst to accelerate development across the eastern waterfront...amount of this fee would be negotiated in closing the transaction."</p>
p. 181	"If this vision were applied to the full IDEA district, it could include around 6,800 affordable housing units, representing nearly a third of the current annual citywide target for new affordable rental housing units. With additional government support, that vision could help create more than 13,600 total below-market units."
p. 213	"The proposed transaction meets that goal, delivering substantial economic value to the public sector while enabling Sidewalk Labs to earn a reasonable and justified return for its multiple roles, and providing flexibility to government in how the project is implemented – particularly related infrastructure financing."
p. 216	See Table: "Sources and uses for the Sidewalk Toronto proposal"
<b>Roles/Responsibilities</b>	
p. 232	<u>"Proposed Roles and responsibilities within IDEA district</u> City, Province and Government of Canada column:



	<ul style="list-style-type: none"> <li>▪ Land Use and Development Planning – IDEA district planning documents would require standard set of approvals</li> <li>▪ Infrastructure Financing – enable city fee and development charge credits, municipal infrastructure contributions and local infrastructure contributions, enable LRT financing through TIF or identify alternative funding source.</li> <li>▪ Infrastructure Delivery – Co-lead LRT delivery in coordination with WT</li> <li>▪ Real Estate Development – traditional roles – IDEA district would require standard set of approvals and permissions.”</li> </ul>
p. 78	<p>“Defining public –and private-sector roles.</p> <p>A project of this scope; complexity and duration requires strong public oversight and a regulatory framework predisposed to new approaches... Calling for government to designate a public entity to serve as revitalization lead for the IDEA district with this public administrator empowered to hold Sidewalk Labs and others working in the district accountable.”</p>
<b>Infrastructure</b>	
p. 170	<p>“This growth is achieved through a two-part approach to economic development. First, Sidewalk Labs plans to accelerate and unlock new development through upfront investments in critical infrastructure, such as light rail, and relocation Google’s Canadian headquarters as part of a new innovation campus.”</p>
<b>ISED</b>	
<b>Portlands</b>	
<b>Departments</b>	



<b>Transit</b>	
p. 207	<p>"Adequate provision of public transit is key to the IDEA District's economic success. If needed, Sidewalk Labs is prepared to explore various options with government to facilitate the financing of the light rail to ensure this critical project can move ahead in the near term."</p> <p>"an additional \$400 million of financing that Sidwalk Labs would offer to the public sector as an option to expand the LRT and delivery municipal infrastructure; and additional capital (equity and debt) that Sidewalk Labs expects to enable for the delivery of advanced systems."</p>
p. 221	<p>"In the event government elects to utilize Sidewalk Labs' optional LRT financing, Sidewalk Labs would receive revenue that reflects a market return for the magnitude and risk associated with the agreed-upon financing structure"</p> <p>"In the event government elects to utilize Sidewalk Labs' optional municipal infrastructure financing, SWL would receive revenue that reflects a market return for the magnitude and risk associated with the agreed-upon financing structure."</p>
<b>Indigenous</b>	
<p>p. 154</p> <p>See page 154 for further commitments by Sidewalk Labs</p>	<p>"Quayside sits on the treaty lands of the Mississaugas of the Credit First Nation. Today, there is a significant diverse urban Indigenous community in Toronto. Sidewalk Labs acknowledges the urgent need for, and is committed to furthering the goals of, reconciliation with Canada's Indigenous Peoples..."</p> <p>This project is an opportunity to model how contemporary city building can contribute to, and support, urban Indigenous prosperity and opportunity."</p>
<b>Public Sector</b>	
p. 208	<p>"This structure includes a proposal to pay the public sector a share of the upside value if Quayside and VW prove more profitable than expected; an approach where SWL only begins to earn performance payments after Waterfront Toronto and the public sector reach their objectives; and a profit-sharing proposal through which the public sector would receive a share of the profits generated by certain technologies first tested and deployed in the IDEA District"</p>



## Volume I

Page No.	Quote
<b>Federal</b>	
p. 240	"Provincial and federal privacy commissioners would continue to oversee compliance with all privacy laws."
<b>Government</b>	
p. 425	<p>"These impacts would extend to the River District, resulting in a total of 93,000 jobs, \$4.3 billion in annual tax revenue, and \$14.2 billion in annual GDP – all delivered on a far more accelerated timeline compared to plans in place today to activate the waterfront.</p> <p>In addition to these ongoing impacts, beginning at completion in 2040, the project would also realize cumulative property taxes of \$1.6 billion.</p> <p>Sidewalk Labs believes the majority of jobs located within the IDEA district would be net new, meaning jobs that would not otherwise exist in Toronto but for the creation of the district.</p> <p>This growth would enable all three levels of government to maximize the return realized on the \$1.25 billion investment made as part of the Don Mouth naturalization and Port Lands Flood Project; allow Toronto to realize more than triple the cumulative property tax revenues over the baseline scenario from the area within the same time frame; and delivery both critical public transit infrastructure and thousands of affordable housing units decades earlier than anticipated."</p>
p. 431	<p>Waterfront Toronto and all three levels of Canadian government have taken major steps towards reconnecting Torontonians to the waterfront and realizing its immense economic potential.... Yet this commitment is only one component of the infrastructure necessary to truly capture the enormous potential of the eastern waterfront.</p> <p>SWL estimates that the additional utility, energy and public transit infrastructure needed to enable development of the IDEA district could total upwards of \$3 billion, with these costs reaching upwards of \$4.5 billion across the entire eastern waterfront.</p>
p. 472	Engaged partners at all three levels of government who are committed to promoting the success of high-growth industries, including tech, have made significant investments to grow a culture of innovation. Government support focuses primarily on a specific pain point unique to the Canadian innovation ecosystem: while Canada produces start-ups in comparable numbers to other cities, small enterprises struggle to evolve into major companies backed by outside capital with global presence, in part due to a lack of access to large customers (such as governments or larger companies) that would create sufficient demand to grow the business.
p.473	As a result, governments have prioritized investments in improving access to capital and customers. For example, the Canadian government recently contributed over \$400m to the Venture Capital Catalyst initiative, which provides funding for local cleantech firms, and \$1.1 billion to the new Trade Diversification Strategy, a federal program to help Canadian business export to new markets... Demonstrates... potential for DWL's own efforts to leverage partnerships in support of shared values."
p. 502	...Between buildings and infrastructure, the project's construction could add more than \$22.6 billion in value to the Toronto economy and create over 174,000 person-years of full-time employment. In total, the infrastructure and buildings construction represent an 18 times multiplier to the government's initial \$1.25 billion investment in Don Mouth Naturalization Project
<b>Privacy</b>	



p. 93	"To meaningfully enable responsible data use in Quayside, Sidewalk Labs proposes that urban data be controlled by an independent entity called the Urban Data Trust, charged with balancing the interests of personal privacy, public interest and innovation... Sidewalk Labs proposes that the Urban Data Trust anchor this process around a publicly auditable Responsible Data Use Assessment – an in-depth review that is triggered by any proposal to collect or use urban data – and guided by a set of RDU Guidelines that incorporates globally recognized Privacy by Design principles."
p. 209	"Sidewalk Labs proposes to collaborate with material recovery facilities to track contamination in the recycled waste stream via computer vision software."
p. 232	"Urban data, which SWL defines as information gathered in the city's physical environment, including the public realm, publicly accessible spaces and even some private buildings."
p. 233	"clear standards that make data publicly accessible, secure and resilient."
p. 241	RDU Guidelines
<b>Regulation/Regulatory</b>	
p. 47	"Sidewalk Labs recognizes that some of these proposed innovations would require regulatory or policy changes in order to be implemented."
p. 475	<p>"Core to the premise of the IDEA District is an empowered and forward-thinking public administrator that can prioritize innovation and new approaches without compromising the public interest. Many existing urban regulations and policies – such as zoning, building code and automobile regulations – were designed in an earlier era, when the primary way to achieve the necessary public policy outcomes involved sweeping, one-size-fits all regulations."</p> <p>These policies – designed around important objectives, such as protecting the public from industrial hazards or over-developing attractive residential areas – now sometimes limit the ability to find creative solutions to the very same problems they attempted to mitigate. Today's digital capabilities enable these policies to achieve their intended outcomes in more flexible ways.</p> <p>For instance, advanced modelling can help ensure that neighbourhoods and buildings are designed to get adequate greenspace and sunlight without rigid built-form bylaws.... Enabling more fluid zoning."</p>
p. 171	Flexible floor plates and movable walls enable residents and businesses to adapt their spaces quickly and inexpensively as their situations change – or to shift uses entirely...proposed digital building code system.
p. 77	"Sidewalk Labs proposes to use a digital innovation capable of monitoring noise, air quality and other use-related nuisances in real time, with the goal of enabling a vibrant mix of residential and non-residential spaces to coexist safely."
p. 395	River District's greater scale of diversely programmed buildings could help to accumulate a critical mass of building data, leading to powerful insights that can inform building design and enable new approaches to energy use regulation.
<b>Governance</b>	
p. 232	"Toronto and Ontario have taken some important initial strides to advance the conversation around data governance principles."



<b>Infrastructure</b>	
p.31	"Basic infrastructure like water pipes, sewers and power grids would need to be relocated or upgraded to support any new development."
p. 262	"In the rest of the River District, an array of third parties would take over the development, and Sidewalk Labs' roles would include... deploying a core set of technology solutions required to achieve key objectives; and financing infrastructure (an optional role). A mixture of public, private and non-profit entities would develop buildings, create jobs, provide housing opportunities and deliver social and community infrastructure."
p. 431	"One standard approach to securing this infrastructure is to collect necessary funds through charges levied on developments immediately before they begin construction. But this process could lead to piecemeal infrastructure expansion and create doubts around the timely construction of core infrastructure, especially the light rail extension."
p. 208	"The Quayside plan features a series of technological, policy and infrastructure advances to exceed Toronto's goals for landfill diversion and demonstrate an innovative path forward for neighbourhood waste...by providing real-time feedback on common recycling mistakes, using smart chutes to separate waste and institute a "pay-as-you-throw" system to reduce waste which has proven effective in single-family homes and conveying waste to a centralized location through underground tubes to reduce contamination."
<b>Port Lands</b>	
p. 257	<p>"As another important step, the Port Lands Planning Framework and Villiers Island Precinct Plan have established a vision to guide the transformation of the area over the next half century... But even with significant recent public investment, the area still lacks even basic infrastructure and remains separated from the great neighbourhoods that surround it to the north. Despite a shared recognition of systems required to achieve the eastern waterfront's potential, such as new public transit lines, there is currently no clear path to funding and building them."</p> <p>"But many of the innovations initiated in Quayside can only achieve their full potential and become financially feasible when applied at a larger scale. That is why Sidewalk Labs is proposing a second phase for the project across a larger geography it is calling the River District."</p> <p>Together, Quayside and the River District form the basis of the Sidewalk Toronto project proposal to transform a small portion of the eastern waterfront... into an Innovative Design and Economic Acceleration (IDEA) District."</p>
p. 260	In one area of the River District, Villiers West, Sidewalk Labs proposes to be the lead real estate developer in concert with local development partners, with Google's relocated Canadian headquarters as the centrepiece... In total, Sidewalk Labs proposes leading development (with local partners) only on Quayside and Villiers West – less than 7 percent of the eastern waterfront."
p. 263	Quayside's five hectares make it a perfect place to explore new innovations... but many can only become effective or financially feasible at the scale of the 62-hectare River District.



p. 496	"...projected average wage for all jobs in the IDEA district to \$70,000 – a 17 percent increase from the approximately \$60,000 based on the rough proportion of jobs in the Port Lands Planning Framework."
<b>Transit</b>	
p.	"A self-financing light rail extension would connect residents to employment hubs and draw workers and visitors to the waterfront from all over the city."
p. 95	"If public funding is not available, an innovative self-financing mechanism could financing this expansion, based on existing city plans, estimated to cost \$1.2 billion. The idea behind self-financing is to impose a future charge on real-estate value and borrow in the present against that stream of future funds to pay for part of the cost of construction of the transit system. But Quayside's proposed development of 20 buildings (roughly 2.65m sq ft) is not large enough to sustainably support the financing of the waterfront light rail."
p. 265	"A sufficient development area and density are needed to self-finance the construction of the planned public transit extensions – without competing with other city funding priorities."
p. 268	<p>"Toronto has planned an extension of its public transit network across the eastern waterfront since 2006, recognizing light rail's role in supporting the development of sustainable neighbourhoods. But the plans, which could cost as much as \$1.2 billion remain unfunded. Sidewalk Labs is proposing, if public funding is not available, that this critical project can be built now and financed through future revenue streams generated by the development made possible by the transit extension.</p> <p>This self-financing approach is a proven strategy for accelerating transit construction in a way that does not compete with other public spending priorities. Sidewalk Labs is prepared to provide financial support to this approach, but it only becomes viable if the new transit lines would serve a sufficient amount of development."</p>
p. 431	According to a 2019 report prepared for the Waterfront Business Improvement Area (BIA) organization by the engineering and development consultancy Hatch, a delay in light rail development until 2045 would result in over \$20 billion in forgone cumulative tax revenue across all three levels of government and cost more than \$1.8 billion in lost productivity.
p. 434	Sidewalk Labs endorses a \$1.2 billion, 6.5km light rail extension that would realize the city's existing plans and position the eastern waterfront for future development. To help accelerate the implementation of this extension, Sidewalk Labs commits to providing financing, which could facilitate the delivery of a significant portion of the system years sooner than currently projected in the TTC 2018 Corporate Plan.
p.437	Sidewalk Labs anticipates the light rail extension would link to the city's expansive existing network, including connections to multiple citywide routes that carry over 250,000 passengers daily. At full buildout of the light rail extension, Sidewalk Labs estimates that it could support roughly 72,900 daily trips and reduce car trips by 16.5 percentage points.
p. 352	"SWL believes that a proven financing mechanism of self-financing sometimes referred to as "value capture" could finally make this project a reality if governments should not be willing or able to fund from more traditional sources. In this approach the light rail would essentially fund its own extension, using the projected revenue streams from the future development – made possible by the new transit lines – to finance the upfront construction costs."



	<p>"It would allow construction of the light rail to proceed as development begins, while limiting the amount of direct public funding required. This self-financing strategy is only viable for certain projects. The key issues is whether the transit expansion will create enough value to offset the cost of building that expansion. The strategy is often not viable where new transit will serve existing neighbourhoods, because those areas are already sufficiently valuable..."</p> <p>A small neighbourhood such as Quayside, consisting of just a few blocks could never repay the massive investment required. But the River District provides the potential for enough new development at high enough density to design and fund a rapid transit system that can nourish new neighbourhoods and support their growth. The approved extension would include up to 19 new stops across a route that connects Quayside, Villiers Island, McCleary and Polson Quay with the newly planned East Harbour station and the rest of the city."</p>
p. 366	"At the scale of the River District, however, the number of residents and employees would be large enough to achieve volume discounts for transit and new mobility services, creating a self-sustaining base of users."
<b>Indigenous</b>	
p.87	<p>"Sidewalk Labs will strive to create opportunity for local Indigenous communities through a number of initiatives: Engagement... to build a mutually respectful relationship and explore potential collaborations. Workforce initiatives...skills training and job opportunities in construction and tech, and include Indigenous suppliers in diversity procurement strategies. Design and education... educational opportunities and Quayside's future through the lens of Indigenous design."</p> <p>"As a company proposing a new vision for these lands, Sidewalk Labs intends to engage with and include MCFN in the project."</p>
p. 153	"Sidewalk Labs is working with Toronto's Indigenous community to design and program an Experimental Zone, guided by principles around environmental history, cultural history, place and tradition, and respect for nature. Programming would change across the seasons: in colder weather, the area could host a design competition for local Indigenous artists to develop innovative structures for inter gatherings..."
<b>Public Sector</b>	
p. 385	<p>SWL projects that its new modular factory approach would generate significant value for developers. The buildings could use the factory's library of parts which would have already been reviewed by city agencies and designed to fit together seamlessly, reducing the risk of delays and accelerating construction time by up to 35 percent. These benefits would enable developers to complete more projects, at a lower cost, within a given time frame than they do today.</p> <p>Developers who recognize this value should be willing to bid a higher price for the land, much of which is publicly owned. These higher land value payments to the government, realized on all publicly owned parcels across the scale of the River District could generate an estimated \$639 million that could be directed towards affordable housing.</p> <p>A permanent 1 percent resale fee could be applied on the resale of all condos in Quayside and the River District to support affordable housing... those relatively modest fees compounded with scale, and over time, they could generate an estimated \$321 million across the River District.</p> <p>Three new private sources could direct a portion of the value generated by the innovations deployed across the River District to below-market housing. Sidewalk Labs proposes that these funds would be managed by a new entity known as the Waterfront Housing Trust. The trust would be operated by the public sector – not by SWL – and it would be responsible for assembling and disbursing funding to below-market housing in the River District.</p>



p.384	With additional public-sector support, this private funding could help create more than 13,600 below-market units. That would include 6,800 affordable housing units, representing nearly a third of the current annual citywide target for new affordable rental housing units.
p. 387	"the ability to design efficient units... reducing the unit's footprint allows developers to build more total units. SWL proposes that a percentage of this increased revenue potential be directed towards affordable housing. At the scale of the River District... can create \$475 million in value that could be applied towards below-market housing."
<b>Public Administrator</b>	
p. 233	"SWL proposes that urban data be controlled by an independent entity called the Urban Data Trust, charged with balancing the interests of personal privacy, public interest and innovation." "Process would be anchored by a Responsible Data Use Assessment"

OTHER KEYWORDS WITH NO RELEVANT HITS	
<b>Approval</b>	
<b>Canada</b>	
<b>PIPEDA</b>	
<b>Legislation</b>	
<b>Funding</b>	
<b>Roles/Responsibilities</b>	



## Volume II

Page No.	Quote
<b>Federal (9)</b>	
287	<i>Expanding tools for housing Affordability – Traditional public sources – existing gov't programs: CMHC National Housing Co-investment Fund</i>
412	Chapter 5 – part 2: Setting Data Standards that are open and Secure: Prioritize Data Residency: Reference to explaining no data residency req'ts in Canada, but emphasis to ensure proper safeguards. Reference to consultation by the OPC started April 2019 on transborder flow of data. SWL will make every effort to store data in Canada. To the extent that it cannot it will be transparent about any such decision.
414	Chapter 5, part 3: Creating a trusted Process for Reliable Data Use: <ul style="list-style-type: none"> <li>reference to historical context of PIPEDA (20-year old legislation, created when less than 42% of households had a personal computer; smartphones didn't yet exist)</li> <li>Reference to fed/prov/muni regulators calling for stronger national and provincial data strategies that protect personal privacy while enabling private sector companies to offer services using data rather than competing to own the data outright.</li> </ul>
416	Reference to fed and prov privacy commissioners providing guidance to companies to consider the potential impacts of aggregated or de-identified data on individuals or communities at large, but companies would benefit from more guidance in this area.
419	Reference to federal and provincial; privacy commissioners continuing to oversee all privacy laws, while data trust would establish RDU guidelines for the IDEA district and manage a 4-step process for approving the responsible collection and use of urban data
423	Longer-term options: over time once the urban data trust has overseen the collection and use of data in the IDEA district and has gone through multiple use cases with fed and prov privacy regulators, it is possible that more enduring arrangements could be implemented.
<b>Canada (103)</b>	
25	<i>Reference to StatsCan data on amount of time average torontonians spend commuting daily</i>
34	<i>Extending LRT could generate \$22.8 billion in additional tax revenue over 20 years for the gov'ts of Toronto, Ontario and Canada</i>
218	<i>SWL would build on Canada's growing efforts to embrace mass timber by reimagining the supply chain, harvesting local sustainable timber that would be processed in a new Ontario-based factory. The resulting construction process would be faster, more predictable, less expensive, and better for the environment – jumpstarting a new national industry.</i>
230	<i>Reference to NRC possibly aligning with US body to approve by 2021 the construction of tall timber buildings up to 18 storeys tall.</i>
250	<i>Reference to mist-based fire protection system pilots underway in Canada.</i>
266	<i>Reference to CMHC rental construction financing initiative program contributing to rise in Toronto rental housing production in past year, mostly Luxury rentals.</i>
377	<i>While Canada has a strong foundation of privacy laws around personal information, and recognizes privacy as a fundamental human right, urban data creates a new set of questions that have surfaced during the Sidewalk Toronto public consultation process.</i>



411	Reference to Responsible AI framework developed by SWL based on international standards adopted by the OPC. Would operate alongside RDU framework.
414	Reference to National Consultations on Digital and Data Transformation launched in 2018.
415	Reference to SWL also consulted with all levels of government, and with the OPC and the IPC, and various departments within the City of Toronto. Such collaboration has been critical, because there is no comprehensive and unified digital governance model in Canada for the type of community SWL hope would emerge within the IDEA district. Canada is poised to lead a global change when it comes to data governance strategies.
<b>Government (97)</b>	
34	<i>See above</i>
36	Reference to costs of ignoring congestion and inefficiency of government's having to retrofit transit into high-density communities that had ignored transit in their development.
40	Reference to traditional 3-way cost-sharing among gov'ts to fund transit and lack of commitment to funding transit on the eastern waterfront. Proposal to encourage transit through "self-financing."
41	<p>Suggests that a non-profit or new government entity could be created to oversee the implementation of a "self-financing" proposal. Its role would be to manage the funds raised, which would be used exclusively for the LRT expansion.</p> <p>Above all, extending the light rail via self-financing, beginning with Quayside would demonstrate a new financially sustainable way to create critical transit infrastructure with reduced taxpayer funding; pioneering this approach could give Toronto-area governments a powerful tool to deliver the new transit infrastructure the city and region urgently require.</p>
122	Public Realm: Reference to the creation of a n "Open Space Alliance" governance entity that would handle the implementation of innovation ideas for the Public Realm. Would bring together governments, landowners and tenants
178-181	Mission and governance principles of the OSA: City land would remain government owned but OSA would be engaged in the programming, operations and maintenance of lands.
231	In 2019, work to begin designing a 30 storey tall timber prototype would require close collaboration with government partners to determine the necessary approvals for delivering a system of tall timber buildings, starting with Quayside.
263	<p>Expanding tools for housing affordability: Create an Ambitious program to meet the housing affordability challenge: 40% below market:</p> <ul style="list-style-type: none"> <li>• But while additional tools such as factory construction and resale fees can be initiated in quayside, a neighbourhood of this scale and near-term development timeline requires significant support from existing government funding sources to meet – and – exceed the affordability objectives established by Waterfront Toronto.</li> </ul>
<b>Privacy</b>	
377	...These challenges are especially complicated for "urban data," which SWL defines as information gathered in the city's physical environment, including the public realm, publicly accessible spaces and even some private buildings. While Canada has a strong foundation of privacy laws around personal information, and recognizes privacy as a fundamental human right, urban data creates a new set of questions that have surfaced during the Sidewalk Toronto public consultation process.



398	<p><i>Use distributed credential infrastructure to protect privacy. ...SWL has been exploring the field of distributed credentials. This emerging approach uses privacy-preserving techniques to enable interactions such as the one described above in a way that provides only the minimal amount of information necessary, with a person's full consent over what information is shared.</i></p> <p>Distributed credentials can ensure that people share the least information necessary to complete any transaction.</p>
411	<p>SWL's commitment to "responsible AI." To help guide its use of AI, SWL has developed a Responsible AI framework guided by six overarching principles that are contextual, progressive and applicable to all types of tech. The framework is inspired by leading international standards, such as the Declaration on Ethics and Data Protection in AI, which was signed by the Privacy Commissioner of Canada. (These principles would work alongside the proposed RDU guidelines described on page 424.)</p>
419	<p><i>Implement the Urban Data Trust: Provincial and federal privacy commissioners would continue to oversee compliance with all privacy laws. Additionally, this proposal calls for the establishment of an independent Urban Data Trust, tasked first with establishing a set of RDU Guidelines that would apply to all entities seeking to collect or use urban data in the IDEA District and, second, with implementing and managing a four-step process for approving</i></p>
<b>PIPEDA</b>	
381	Responsible Data Use: Existing Canadian Privacy Laws
414	See reference above
417	Personal Information has a legal definition in Canada and is the subject of privacy laws, including PIPEDA...
421	The Chief Data Officer's decisions would be made to ensure that all actors in the IDEA District comply with applicable laws, such as PIPEDA and provincial or municipal privacy laws. The Chief Data Officer and the board would also develop protocols on when and how data could be stored outside of Canada.
433	<p>Step 3: Receive a decision.</p> <p>A note on legal compliance: An organization's approach to legal compliance would be part of the Urban Data Trust's decision-making process, but the organization itself would ultimately be responsible for legal compliance. Failure to abide by relevant privacy laws could result in enforcement action by the appropriate regulator and legal remedies imposed by the Urban Data Trust.</p> <p>If personal information (as defined by PIPEDA) is involved in a proposal, the "legal compliance" section of the RDU would collect information detailing how the data is in compliance with privacy laws. The Urban Data Trust would not assess whether the organization is in compliance with Canadian laws, because under PIPEDA, organizations must remain accountable for the personal information they collect, use, and disclose. There are also practical reasons involving accountability and liability that account for why the Urban Data Trust should not be responsible for this compliance. ...</p> <p>The Urban Data Trust could deny applications based on overt or apparent non-compliance. But the Urban Data Trust's opinion on legal compliance – for example, through the acceptance or rejection on an RDU based on PIPEDA compliance – should not be taken as validating compliance or as evidence or a ruling on legal compliance.</p>
<b>Legislation</b>	



304	<p><i>Chapter 4, Part 1 – Creating Low energy Buildings</i></p> <p><i>Toronto and Ontario have made strides to tackle these challenges. The Toronto Green Standard (TGS), the city's sustainable design requirements for new development, sets targets for measurements such as energy use intensity and GHG intensity that get progressively more ambitious over time. TGS includes four tiers of performance, with Tire 1 as a code requirement, Tier 2 as a stretch goal with incentives, and Tire 3 and 4 voluntary higher levels working towards zero emissions. And in February 2017, Ontario passed Energy and water Reporting and Benchmarking legislation, in an effort to better track building energy use.</i></p>
422	<p><i>Ch. 5 - Longer-term options</i></p> <p>....Public-sector agencies receive their mandate from enabling legislation, are responsible for performing a public function or service, and are accountable to the minister responsible for that legislation. An advantage of transforming the Urban Data Trust into a public-sector agency is that the concept and process could then be applied to a wider group of organizations and places where similar technologies are being deployed. A disadvantage is that housing the Urban Data Trust in a public sector entity would require new or amended legislation, and the passing of legislation can take time and would need to account for emerging technologies.</p>
<b>Regulation/Regulatory</b>	
Pag 31 – Ch 1 - Mobility	<i>A Note on Modelling Its limitations. All models are simplifications; for example, no one can predict the impact of new regulations on travel behaviour or the emergence of new technology with full accuracy. The G4ST model is an attempt to represent travel demand and decisions, but Sidewalk Labs recognizes that modelled mode shares and results are best seen as indicators of outcomes rather than perfect projections.:</i>
50 – Ch 1 - Mobility	To encourage bike (and other low-speed vehicle) services in Quayside, Sidewalk Labs plans to create parking for nearly 3,800 bikes for residents and employees (20 percent more than required by regulation), 190 bike-share docks, 60 electric bikes, and 190 e-scooters. A neighbourhood of this size would typically have no more than 15 bike-share bikes (as per Toronto Bike Share criteria) and no dedicated space for e-bikes or scooters.
55 Ch 1 - Mobility	To that end, Sidewalk Labs supports research and stakeholder engagement initiatives that aim to improve the collective understanding of the effects of self-driving vehicles on urban transportation systems and to catalyze the consensus- building process to explore potential regulatory models. Sidewalk Labs was the funding partner of the MaRS Mapping the Autonomous Vehicle Landscape research initiative, which engaged government officials, industry leaders, and civic organizations, and mobility experts to identify regulatory priorities and dissect various governance models for the GTA.
59 – Ch 1 - Mobility	SWL 10 self-driving principles (Principle 1): Self-driving vehicles, drones, and robots will likely be commercially feasible and regulatorily viable in the next 10 years. Therefore, Sidewalk Labs' focus is not on fostering the adoption of these technologies but on shaping service patterns to optimize for urban quality of life.
137 – Ch. 2 - public realm	Heated, lighted green pavement: Sidewalk Labs recognizes that this new approach to street systems would require changes to existing regulations and operations. In 2019, Sidewalk Labs plans to work with local universities and regulators to refine the prototype and develop a pavement that would work in a Toronto context.



<b>170 – Ch 2 - public realm</b>	Weather mitigation technologies: Sidewalk Labs plans to work with local regulators to ensure AODA compliance for these systems, building on best practices for indicating low clearance zones with tactile cues, and to gain support for pilots in areas where a system (such as the Raincoat) would extend into the right of way.
<b>231 – Ch. 3 - Buildings</b>	In Quayside, Sidewalk Labs proposes to create buildings up to around 30 storeys by filing for a common performance- based approvals pathway known as “alternative solutions,” the approach used by Terrace House in Vancouver and being pursued by the Arbour in Toronto. Approval of this alternative solution involves submitting project-specific structural-engineering calculations and computer models to regulators, demonstrating how the building would perform as well as or better than the “acceptable solution” for conditions such as wind, rain, fire, and seismic activity. <sup>49</sup>
<b>233 – Ch. 3 Buildings</b>	Coordinate the supply chain with a digital delivery system: The proposed Sidewalk Digital Fabrication system would build on existing BIMs to create an end-to-end digital backbone for the entire construction pipeline, connecting suppliers, developers, architects, regulators, contractors, and even landlords.
<b>251 – Ch. 3 Buildings</b>	Real time building Codes: Outcome based approach, neutral spaces To enable this new diversity of uses while protecting quality of life and public safety, this outcome-based system would monitor several types of building regulations on an ongoing, real-time basis via environmental (non-personal) sensors. These devices would be placed in building hallways to collect information on structural integrity and vibration, interior air quality, and noise levels. For example, a strain gauge sensor in a floor slab would be able to detect structural integrity issues in cases where individual building occupants place undue loads on floors. (These systems would not replace the need for standard building sensors, such as fire detectors.)
<b>313 Ch. 4 Sustainability</b>	If Perform were validated in practice in Quayside, Sidewalk Labs would plan to work with the city to require a tool like it with the IDEA District and to establish operational energy limits based on realtime metering for new buildings — not on pre-construction designs. At the full scale of the IDEA District, with a large number of buildings, this tool could form the basis for a real-time energy code that adjusts dynamically for occupancy, tenant type, and weather to ensure fair and appropriate energy use regulation.
<b>414 Ch. 5 Digital innov</b>	
<b>Governance</b>	
<b>422</b>	<i>See above</i>
<b>228</b>	<i>Lock-boxing” funding with a waterfront Housing Trust – To help deliver new funding sources such as factory-based constructions value or a condo resale fee, SWL proposes the creation of a housing trust fund: a new financial vehicle to assemble and disburse funding for below-market housing across the Sidewalk Toronot project area. (SWL would not participate in the trust’s governance and proposes that it be publicly administered, potentially by the public administrator of the proposed IDEA district.)</i>
<b>160</b>	<i>Establishing a clear mission and governance principles: Sidewalk Labs proposes that the OSA convene residents, commercial tenants, landowners, and government partners to identify and achieve a clear mission consisting of the following objectives:</i>
<b>Approval</b>	



<b>Public Funding</b>	
<b>Roles/Responsibilities</b>	
<b>Infrastructure</b>	
<b>ISED</b>	
<b>Portlands</b>	
<b>Departments</b>	
<b>Governance</b>	
<b>Public Administrator</b>	
<b>Transit</b>	
<b>indigenous</b>	



## Volume III

Page No.	Quote
<b>Opening paragraphs</b>	
p.21	Starts with history of WT, inception of SWL, RFP process and ultimate choice of SWL as innovation and funding partner  “...this volume presents a proposal from SWL for a <b>new kind of public-private partnership</b> ”
p.23	Describes public, stakeholder and government engagement and what they heard, leading to an articulation of:  <b>Objectives for people of Toronto:</b> <ul style="list-style-type: none"> <li>• Focus on priority outcomes</li> <li>• Make sure public sector has a strong role</li> <li>• No tech for tech’s sake</li> <li>• Be inclusive and make room for others</li> <li>• Present a transparent business model</li> <li>• Prove out the concept</li> <li>• Build on what has been done</li> </ul> <b>SWL’s starting point and goals:</b> <ul style="list-style-type: none"> <li>• SWL not seeking to sell personal information or use it for advertising</li> <li>• SWL not motivated by a desire to export Canadian talent or intellectual output to the U.S.</li> <li>• SWL not trying to develop the Port Lands (as a real estate developer, would be restricted to Quayside and Villiers West)</li> <li>• SWL is seeking to demonstrate the impact of innovation on quality of life in cities</li> <li>• SWL is seeking to earn a reasonable return on its \$50M initial investment</li> </ul>
p. 27	Sets out <b>seven principles</b> guiding the proposed partnership <ul style="list-style-type: none"> <li>i. Devise a transaction that would achieve WT’s priority outcomes (of job creation and economic development; sustainability and climate-positive development; housing affordability; new mobility; urban innovation including robust data privacy and digital governance)</li> <li>ii. Scale the project to achieve the desired outcome (...ultimately the project should be scaled such that the public policy outcomes are met and the project can be commercially viable)</li> <li>iii. <b>Phase development to manage risk</b> (...new approaches to innovation beyond Quayside <b>should depend on SWL first hitting milestones</b> that demonstrate it is likely to succeed in future phases)</li> <li>iv. Establish strong public sector oversight (...and an administrator capable of moving it forward)</li> </ul>



Page No.	Quote
	<ul style="list-style-type: none"> <li>v. Structure the role of SWL to leverage its strengths (...including urban planning, finance, design and technology; access to capital and tech resources, including from Alphabet; and willingness to take risks)</li> <li>vi. Use proven approaches where possible (...rely on existing local precedents whenever possible)</li> <li>vii. Align financial interests (...transaction structure must ensure SWL is financially successful only when the public sector is financially successful and also achieves its objectives)</li> </ul>
	•
<b>Federal</b>	
<b>Government of Canada</b>	
<b>Government</b>	
<b>Privacy</b>	
<b>PIPEDA</b>	
<b>Intellectual Property</b>	
p. 31	SWL would...work with governments to design a structure to support Canada's capacity to build and retain IP locally
<b>Legislation</b>	



<i>Page No.</i>	<i>Quote</i>
<b>Regulation/Regulatory</b>	
p.32	A carefully targeted package of regulatory reforms and development standards would apply in the IDEA District
<b>Governance</b>	
p.32	This proposal calls for government to designate a public entity to serve, or if WT is so designated to continue to serve, as revitalization lead for the IDEA District with certain additional powers....This public administrator would be empowered to hold SWL and others working in the district accountable for performance, to steer innovation strategy, and to oversee the governance structures needed to manage new district systems
<b>Approval</b>	
<b>Public funding</b>	
<b>Roles/Responsibilities/Economic Impact</b>	
p.29	Waterfront Toronto or another public entity would have accountability for the project, set its objectives and advance a forward-looking vision for the eastern waterfront
p.31	SWL would make the following commitments: <ul style="list-style-type: none"> <li>• Advance a bold innovation agenda (e.g., tall timber, weather mitigation strategies, mobility subscription package, dynamic street, energy infrastructure)</li> <li>• Develop Quayside as a complete and inclusive community (see stats below)</li> <li>• Deliver a major economic development project (see stats below)</li> <li>• Serve as a lead developer of advanced systems</li> <li>• Serve as a technical partner and advisor (e.g., provide technical specifications and performance requirements to guide development; if extended to later phases, assist in procuring partners and operators for advanced systems...this role starts at Quayside and would expand to broader geography upon meeting a series of project milestones)</li> <li>• Deliver essential technology (e.g., provide at cost a limited number of “purposeful solutions” not available in the current marketplace; for certain tech developed by SWL and deployed at scale in connection with the project, SWL proposes to share 10% of proceeds with public sector)</li> <li>• Optional financing for critical infrastructure (including LRT; see more under infrastructure below)</li> <li>• Unlocking \$29B in third party investments (e.g., catalyze up to \$3.9B total real estate investment in Quayside and Villiers; enable \$1.6B in optional financing for municipal infrastructure, transit and advanced systems; additional optional \$400M from SWL for LRT and advanced systems)</li> </ul>



Page No.	Quote
	<p>Stats for Quayside development:</p> <ul style="list-style-type: none"> <li>2.65M square feet of developed space including <ul style="list-style-type: none"> <li>2,600 units of housing, have of which would be purpose-built rentals; 40% of residential units would be below-market housing</li> <li>870,000 square feet of non-residential space (commercial, office, retail, community activities)</li> <li>Space for 3,900 full-time jobs</li> </ul> </li> </ul> <p>Stats for Villiers West urban innovation campus:</p> <ul style="list-style-type: none"> <li>500,000 square feet targeted by Alphabet, enough to accommodate as many as 2,500 jobs (majority of which being Google employees)</li> <li>1.5M square feet of overall commercial space</li> <li>\$10M of SWL seed funding for an Urban Innovation Institute</li> <li>\$10M for a SWL venture fund to invest in local start-ups focused on urban innovation</li> </ul> <p>Stats for at scale development (based on full implementation)</p> <ul style="list-style-type: none"> <li>93,000 total jobs (including 44,000 direct plus indirect/induced)</li> <li>34,000 housing units (~13,600 of which would be below market)</li> <li>89% reduction in GHG emissions</li> </ul>
<b>Infrastructure</b>	
p.24	Sidewalk Infrastructure Partners (SIP) – a new company created by SWL to finance next generation infrastructure systems that can help unlock sustainable development (cross ref to Chapter 2, p.47)
p.24	Horizontal development infrastructure (definition) – the construction and stabilization of infrastructure improvements, systems and services that affect and support multiple real estate in a given area. These include municipal infrastructure, such as sewers and parks, transit infrastructure such as light rail extension, and the advanced systems.
p.31	Optional financing for critical infrastructure – adequate provision of public transit is key to the economic success of the eastern waterfront. If needed, SWL is prepared to explore options with government to finance the LRT to ensure this project can move ahead in the near term. SWL would also offer optional financing support for municipal infrastructure (such as parks and sewers) as needed for development of the IDEA District. Finally, to achieve WT's objectives beyond Quayside and Villiers West, SWL could help to facilitate the financing of advanced systems through SIP



Page No.	Quote
<b>Transit</b>	
p. 27	New mobility (one of seven key principles): strengthening connections to the city's public transit network, reducing the cost and climate impact of transportation options, and increasing the convenience for travellers and goods movement.
p. 31	If needed, SWL is prepared to explore options with government to finance the LRT to ensure this project can move ahead in the near term.
<b>Financial terms (see Annex for Summary of Innovation and Funding Partner Proposal)</b>	
p.32	SWL expects to purchase (or long-term lease) the land in Quayside and Villiers W from WT at a price such that the innovation risk and cost will be borne by SWL, but that also fairly accounts for the heightened public policy outcomes required, such as sustainability and affordability unprecedented in any commercial development
p.32	SWL expects to be reimbursed for its advisory and implementation services, and repaid for SWLs' optional financing or credit support for transit and municipal infrastructure (at a fixed annual RoR at market rates)
p.32	SWL is seeking performance payments to compensate for non-standard upfront costs and for serving as a catalyst to deliver on WT's priority outcomes and accelerate the development across the eastern waterfront; amount to be negotiated in closing the transaction and earned if, and only if, SWL reaches a series of performance and growth targets directly tied to WT priority outcomes
p.32	financial structure....includes a proposal to pay the public sector a share of the upside value if Quayside and Villiers W prove more profitable than expected....and a profit-sharing proposal, through which the public sector would receive a share of profits generated by certain technologies first tested and deployed at scale in the IDEA District <ul style="list-style-type: none"> <li>Reference to a 3<sup>rd</sup> party (urbanMetrics) report forecasting for the IDEA District by 2050: \$4.3B in annual municipal, provincial and federal tax revenue from IDEA District (or \$1.5B baseline scenario using current set of government planning documents); \$14.2B in annual GDP (or \$5.1B for baseline); 44,000 direct permanent jobs</li> </ul>
<b>ISED</b>	
<b>Port Lands</b>	



<i>Page No.</i>	<i>Quote</i>
<b><i>Departments</i></b>	
<b><i>Public sector</i></b>	
<b><i>Indigenous</i></b>	



**Annex A:****Summary of Innovation and Funding Partner Proposal (p.34)**

Commitments from SWL	Public Sector Commitments
<ul style="list-style-type: none"> <li>✓ Vertical development of Quayside to deliver a new model for using cutting-edge design and technologies for improving urban life</li> <li>✓ Vertical development of the Villiers W Urban Innovation Campus to further prove out the innovations initiated at Quayside, spur economic development and cultivate an innovation cluster</li> <li>✓ Horizontal development of the advanced systems for Quayside and Villiers W needed to deliver on WT's objectives</li> <li>✓ Deployment of SWL technologies (e.g., "purposeful solutions"), including sharing the profits associated with certain technologies with the public sector</li> <li>✓ Optional financing at a fixed interest rate for enabling infrastructure, including credit support for Waterfront East LRT extension; financing for municipal infrastructure; and, funding "supplemental innovation investments" to make the advanced systems financially viable in the early phases</li> <li>✓ Major economic development investments, including a new Canadian Google HQ on Villiers W, a tall timber factory, seed funding for an Urban Innovation Institute (\$10M), and a venture fund (\$10M) focuses on Canadian start-ups</li> <li>✓ Payment to WT of a share of upside value, above an agreed-upon threshold, from the Quayside and Villiers proceeds</li> <li>✓ 15-year agreement to provide ongoing technical, advisory, and management services for planning, design and implementation in the IDEA District, including for advanced systems and certain other horizontal infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>✓ Partnering with SWL to implement a comprehensive innovation and development strategy, with corresponding fees</li> <li>✓ Establishment of the IDEA District with a public administrator, including regulatory adjustments to enable critical infrastructure and innovative strategies</li> <li>✓ Disposition of the land for Quayside and Villiers W at price that accounts for additional WT requirements</li> <li>✓ Source a limited number of SWL products (at cost) to enable prototyping and deployment at scale, with corresponding IP sharing provisions for certain technologies</li> <li>✓ Payment of performance payments upon SWL achieving a series of negotiated growth and performance targets</li> </ul>



**Summary of Innovation and Funding Partner Proposal**

<b>Commitments from SWL</b>	<b>Public Sector Commitments</b>
<ul style="list-style-type: none"> <li>✓ Vertical development of Quayside to deliver a new model for using cutting-edge design and technologies for improving urban life</li> <li>✓ Vertical development of the Villiers West Urban Innovation Campus to further prove out the innovations initiated at Quayside, spur economic development and cultivate an innovation cluster</li> <li>✓ Horizontal development of the advanced systems for Quayside and Villiers West needed to deliver on Waterfront's objectives</li> <li>✓ Deployment of SWL technologies (e.g., "purposeful solutions"), including sharing the profits associated with certain technologies with the public sector</li> <li>✓ Optional financing at a fixed interest rate for enabling infrastructure, including credit support for Waterfront East LRT extension; financing for municipal infrastructure; and, funding "supplemental innovation investments" to make the advanced systems financially viable in the early phases</li> <li>✓ Major economic development investments, including a new Canadian Google HQ on Villiers West, a tall timber factory, seed funding for an Urban Innovation Institute (\$10M), and a venture fund (\$10M) focuses on Canadian start-ups</li> <li>✓ Payment to Waterfront of a share of upside value, above an agreed-upon threshold, from the Quayside and Villiers proceeds</li> <li>✓ 15-year agreement to provide ongoing technical, advisory, and management services for planning, design and implementation in the IDEA District, including for advanced systems and certain other horizontal infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>✓ Partnering with SWL to implement a comprehensive innovation and development strategy, with corresponding fees</li> <li>✓ Establishment of the IDEA District with a public administrator, including regulatory adjustments to enable critical infrastructure and innovative strategies</li> <li>✓ Disposition of the land for Quayside and Villiers West at price that accounts for additional Waterfront's requirements</li> <li>✓ Source a limited number of SWL products (at cost) to enable prototyping and deployment at scale, with corresponding IP sharing provisions for certain technologies</li> <li>✓ Payment of performance payments upon SWL achieving a series of negotiated growth and performance targets</li> </ul>





**WATERFRONT**Toronto

June 17, 2019

## **Open Letter from Waterfront Toronto Board Chair, Stephen Diamond regarding Quayside**

To all members of the public interested in the future of Toronto's waterfront,

Waterfront Toronto has been advised that Sidewalk Labs will be providing us with their proposed Master Innovation Development Plan (MIDP) shortly.

I am writing now to tell you about the public process that Waterfront Toronto will follow to develop its response to the MIDP prepared by Sidewalk Labs.

Along with you, Waterfront Toronto's Board, staff, and independent consultants will review Sidewalk Labs' proposed plan to determine under which conditions, if any, it could work for Toronto.

As part of this process, Waterfront Toronto will:

- Make the proposed MIDP available to the public within one week of receiving it.
- Consult the public on the proposed MIDP. We will hold the first round of consultation within four weeks of receiving it.
- All feedback received will be rigorously documented and shared publicly.

We know that a number of concerns and cautions have been raised about this project and that there are many voices that want to be heard and considered. It is Waterfront Toronto's responsibility to act in the public interest. We take this responsibility extremely seriously and we know that you are relying on us to fulfill it rigorously. We are committed to working with all of you to do exactly that.

Sincerely,

**Stephen Diamond**  
**Chairman of the Board of Directors, Waterfront Toronto**



# Public Realm

## MASTER INNOVATION & DEVELOPMENT PLAN BRIEFING ASSISTANT DEPUTY MINISTERS

JESSE SHAPINS | APRIL 2, 2019



The Public Realm is  
**shared space of  
the community.**

It includes all spaces that are accessible  
to everyone, from parks to streets to  
the water to markets to shops.



The Public Realm is  
a system of streets, plazas, and open  
spaces that encourages people to  
**spend more time  
outdoors, together.**



# Resident Research: Quayside as a Neighbourhood for Toronto





# Summary findings from the Resident Research



## Design a Living Room, Not a Sitting Room

One of the core lessons from Sidewalk Toronto's user-research on public space is that people want the opportunity to help shape their public spaces. People are motivated to interact when there is evidence that a place has evolved. While it is important for public spaces to be well-maintained, small imperfections — even a bit of patina or grit — add a human quality that helps people understand that they are invited to contribute.



## Foster Small Interactions

People crave face-to-face interactions. The job of urban design is to encourage people to meet, dwell, and share a moment together in public space. That means integrating interactive features that prompt conversation: public art installations, communal picnic tables, or playgrounds with activities for parents, such as adult-scale swings or simply food and beverage stalls.



## Promote Unique but Not Alien

The best public spaces include familiar elements but still manage to surprise and delight. The job of design is to strike that balance, helping people orient themselves while still delivering a unique experience. That involves placing the known in the unknown — or putting relics of the past in a new context.



## Build in Sensory Variety

Variety in public space is far more than what a person can see. The job of urban design is to give people the full spectrum of sensory experiences. Smells, sounds, tastes — these are the traits people remember about a space, and they are often overlooked during the design process in favor of exterior architectural variety. But sensory variety helps people experience a single space in a personalized context, increasing the appeal to a more diverse community.



## Set Positive Rules

Signs filled with lists of don'ts are stifling, but spaces governed by rules that are hard to decipher are just as problematic. The job of urban design is to create legible rules that lead with positivity and inclusion. Setting positive rules includes subtle cues, like lights that indicate a space is still open, as well as explicit encouragement — rules that lead by telling community members what they can do, not what they cannot do.



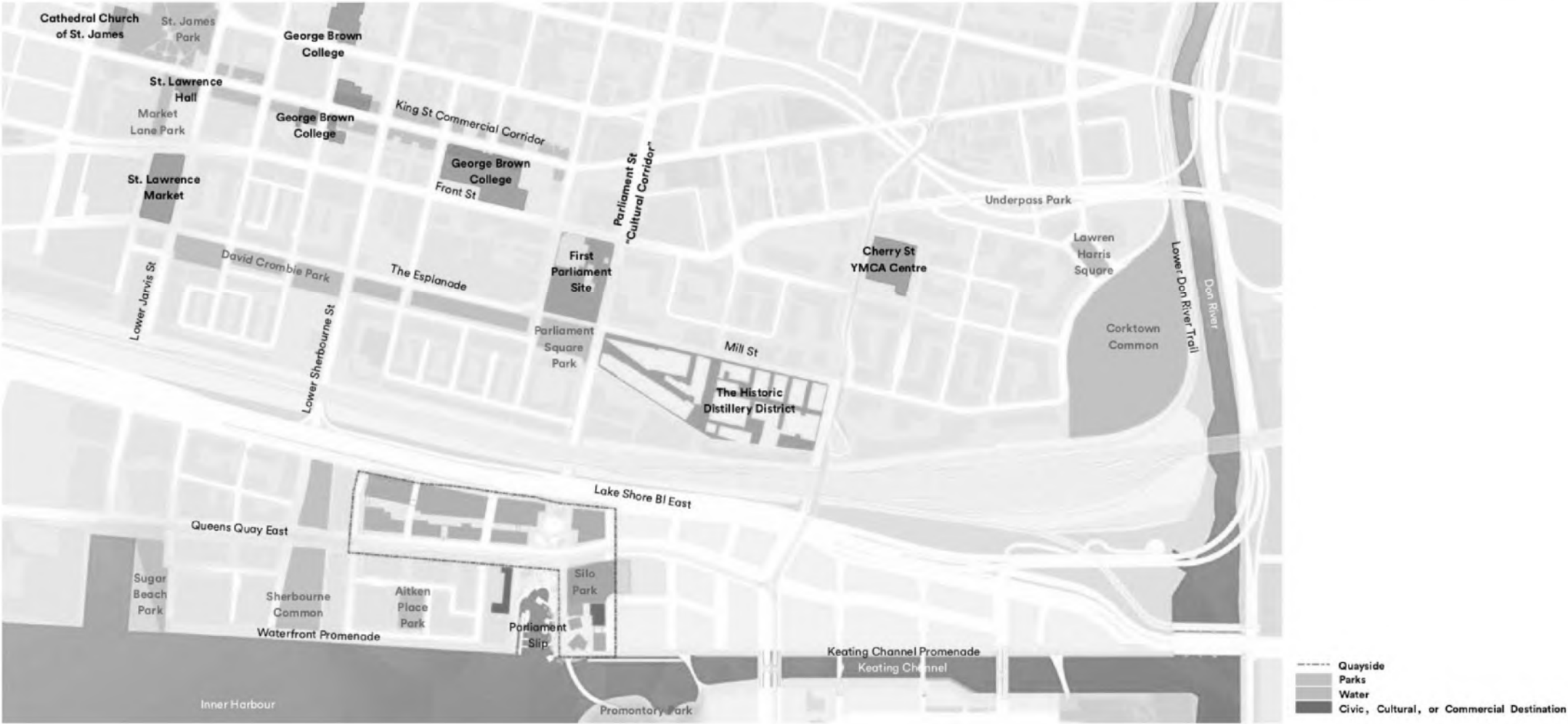
## Celebrating Slowing Down

Part of the beauty of public space is its ability to help us escape from the speed of everyday life. The job of design is to help us celebrate cherished moments of pause, which are increasingly lost to the on-demand nature of society. If we strive for a perfectly seamless experience, we eliminate the magic of chance. The chance to see an old friend or stumble onto a new treat. Public spaces are actually better when there is a bit of friction.



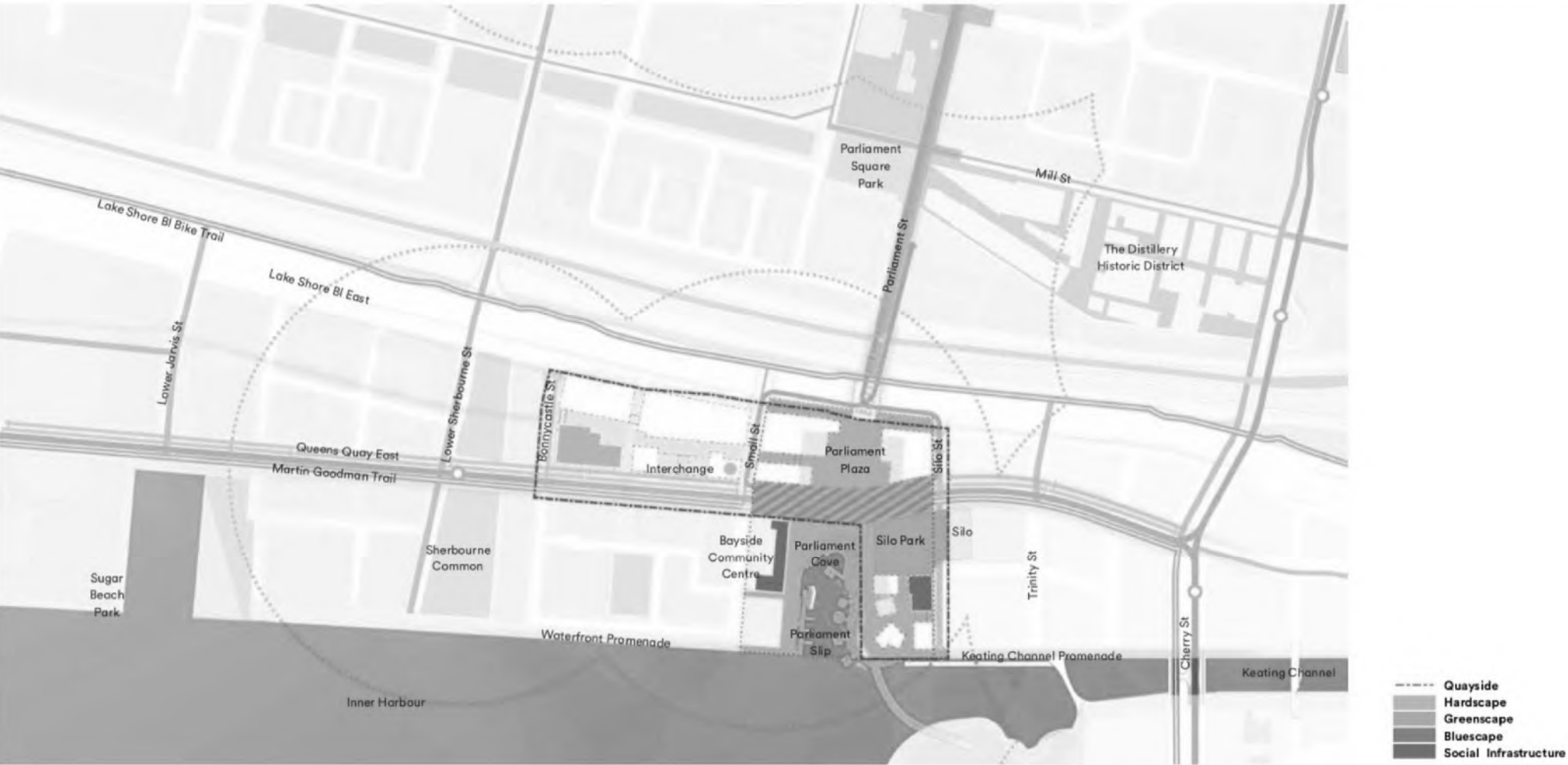


# Stitching public realm network into surrounding neighbourhoods



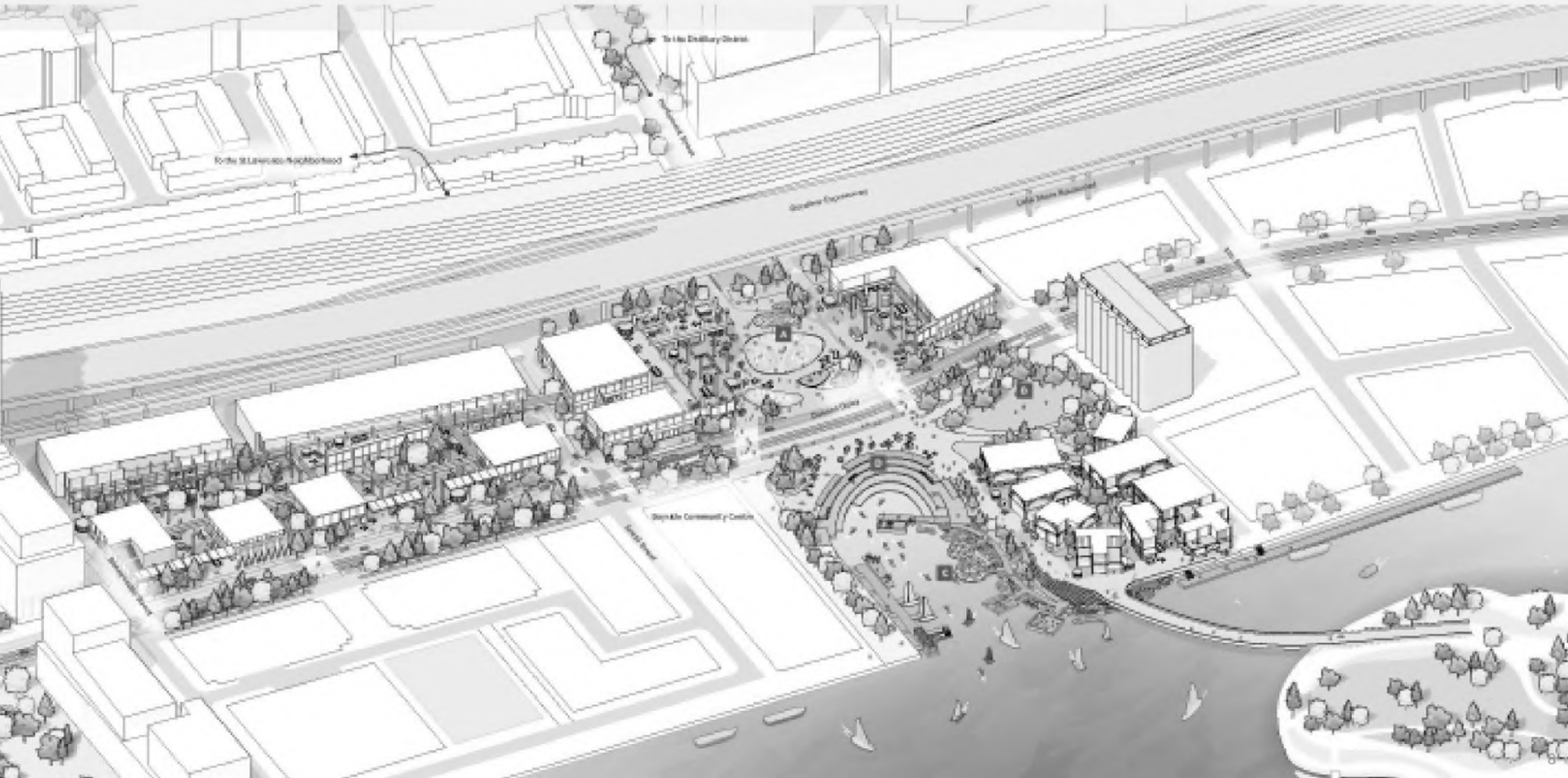


# Integrated public realm network at the heart of the neighbourhood



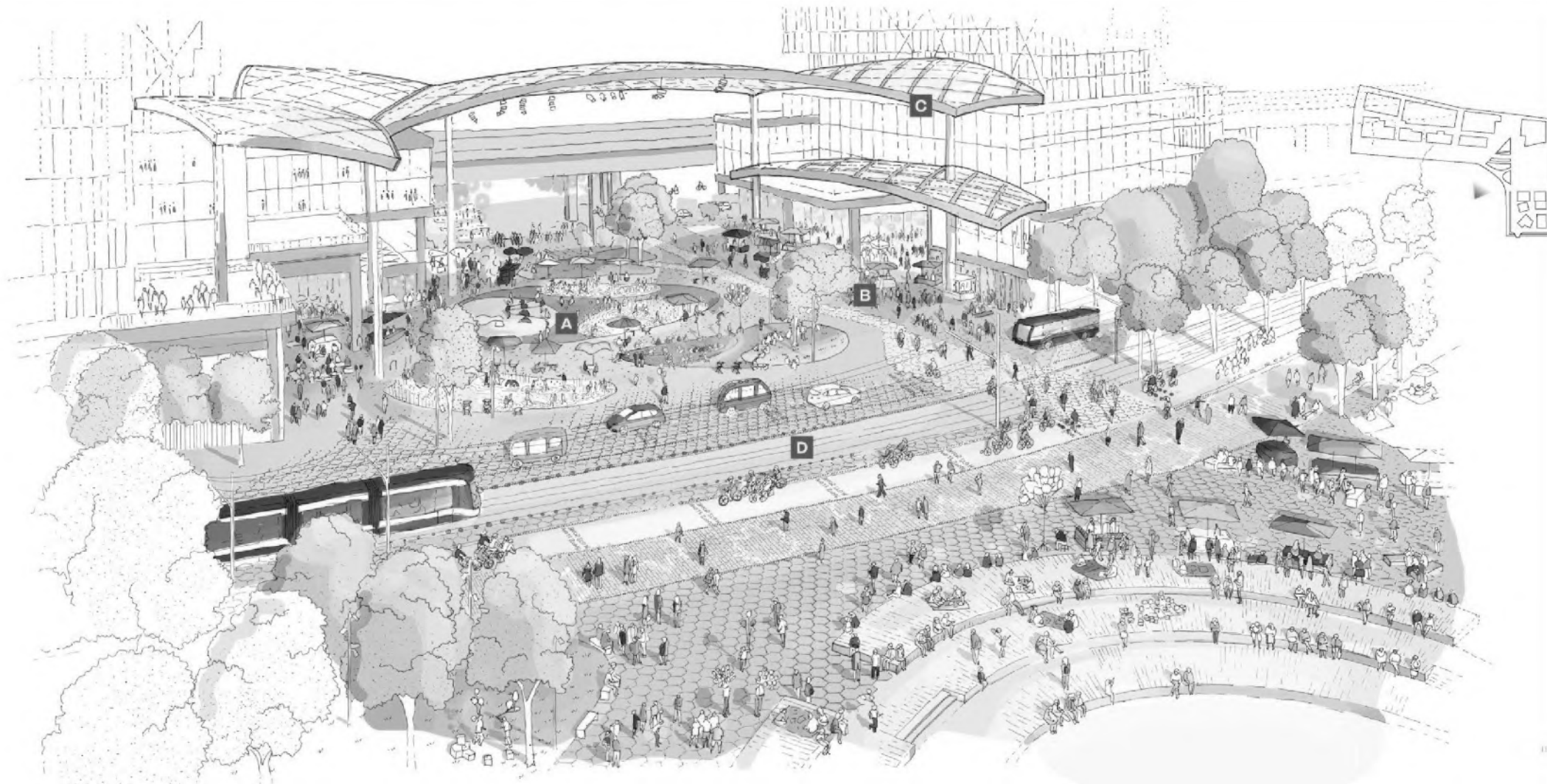


# Integrated public realm network at the heart of the neighbourhood



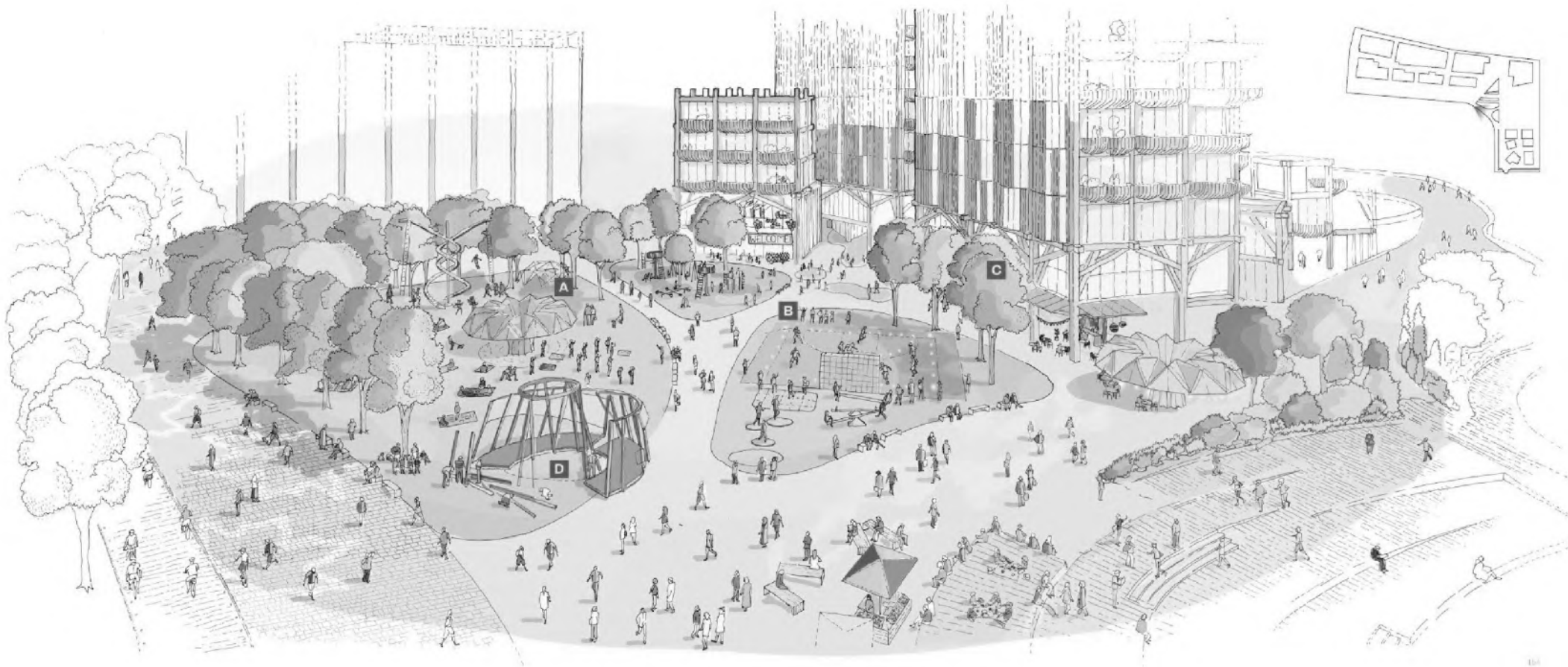


# Drawing People Outdoors at Parliament Plaza



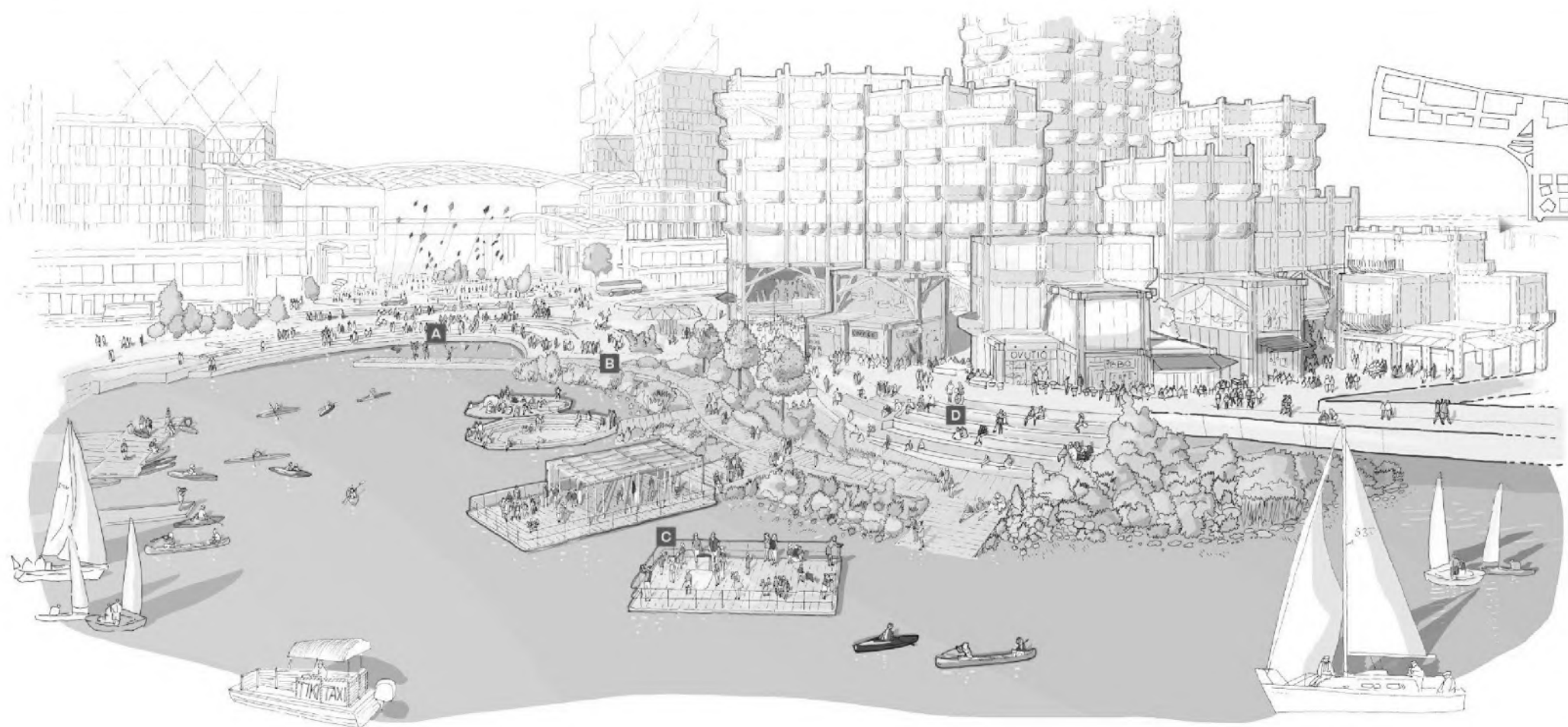


# Facilitating Recreation for All Ages at Silo Park





# Connecting People to the Water at Parliament Slip





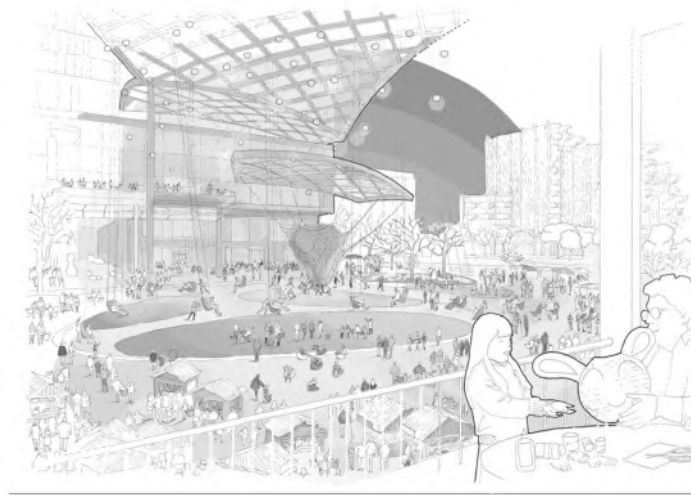
# Planning a Dynamic, Ever-Changing Arts and Cultural Landscape

Quayside's signature neighborhood spaces are designed with public art and creative culture at their core, providing expansive digital, physical and programmatic infrastructure for ongoing creation, expression, and dialogue from diverse voices.



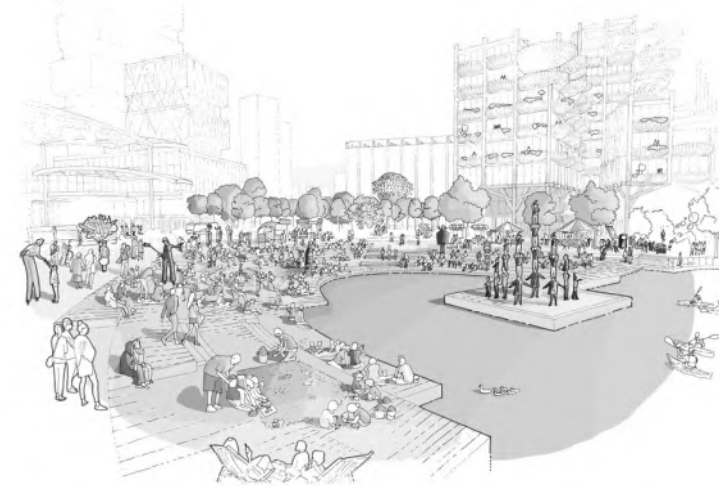
## Underpass installation

The public art experience would begin in the underpasses on Parliament Street north of Lake Shore, where what currently is a damp, dark tunnel can become a multimedia installation of projection and sound that evokes the arrival on the waterfront.



## Parliament Plaza

The planned centre for neighbourhood culture is Parliament Plaza, which is designed as a year-round open-air theatre where artists can create immersive, multi-sensory installations using flexible infrastructure.



## Parliament Cove

An intimate amphitheatre would encircle Parliament Cove, with a barge providing opportunities for spontaneous and planned performances.



## The Public Realm

More  
**Space**

More of the  
**Time**

More  
**Responsive**



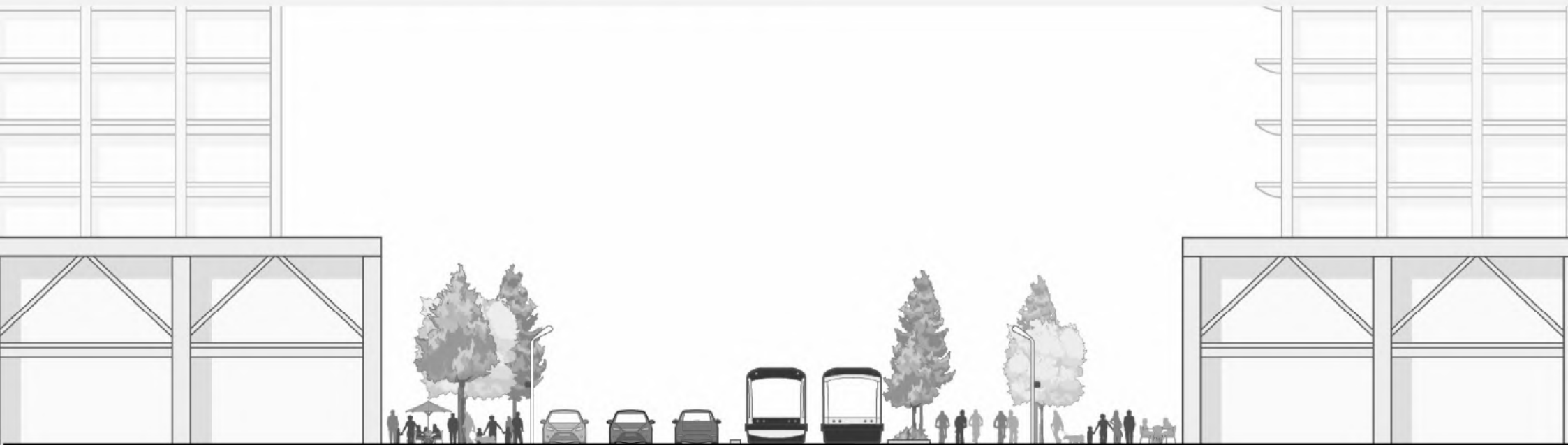
## Creating more space for the Public Realm

**Reclaiming Street  
Space for People,  
Not Cars**

**Maximizing the Potential  
of Parks, Plazas, and  
Open Spaces**



# Creating More Space for the Public Realm





# Creating More Space for the Public Realm

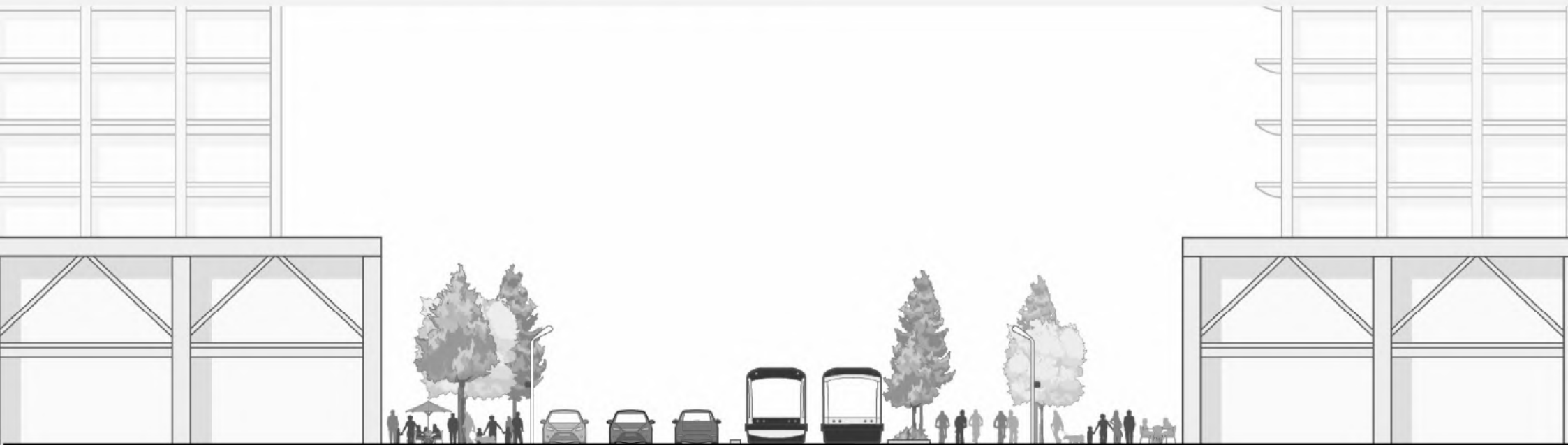


## Step 1

**Narrowing lanes and buffers — a 28% increase**



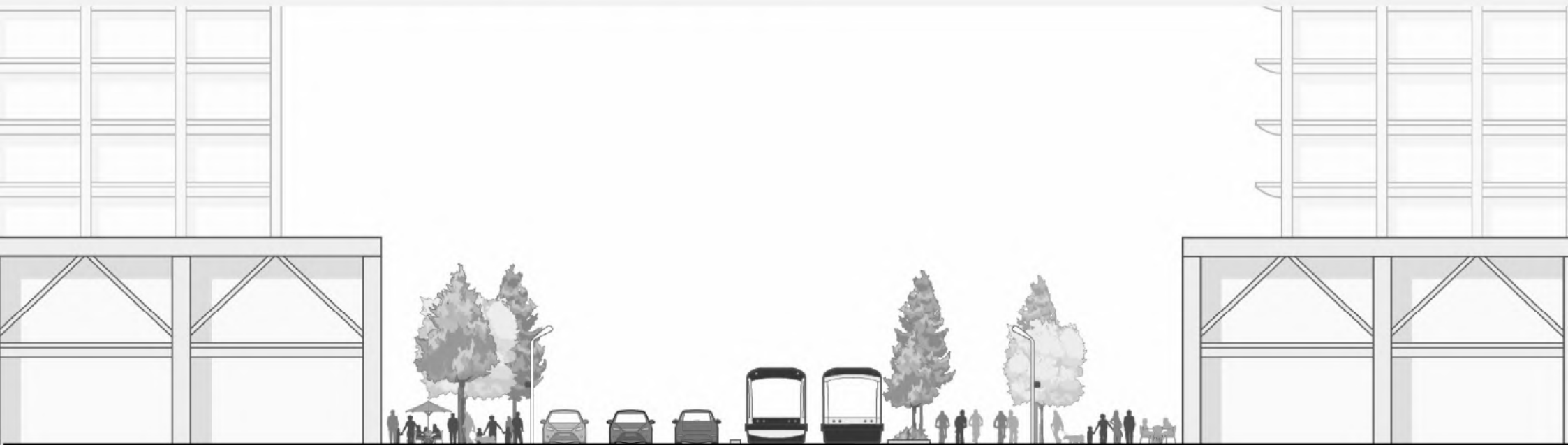
# Creating More Space for the Public Realm



**Reducing vehicle lanes — a 57% increase**



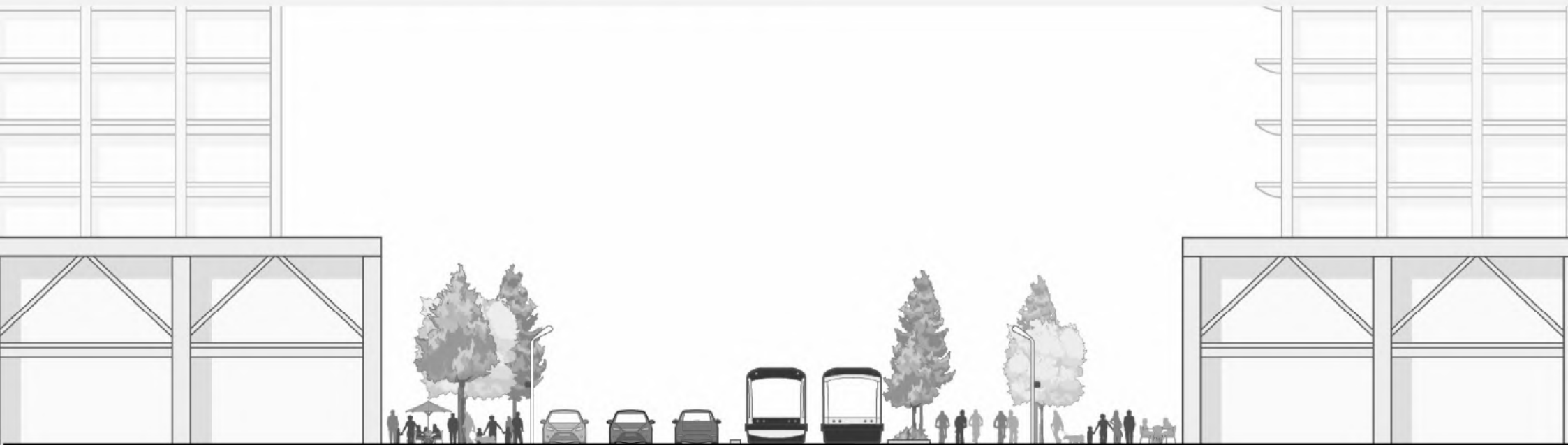
# Creating More Space for the Public Realm



**Sharing rights-of-way — a 91% increase**



# Creating More Space for the Public Realm

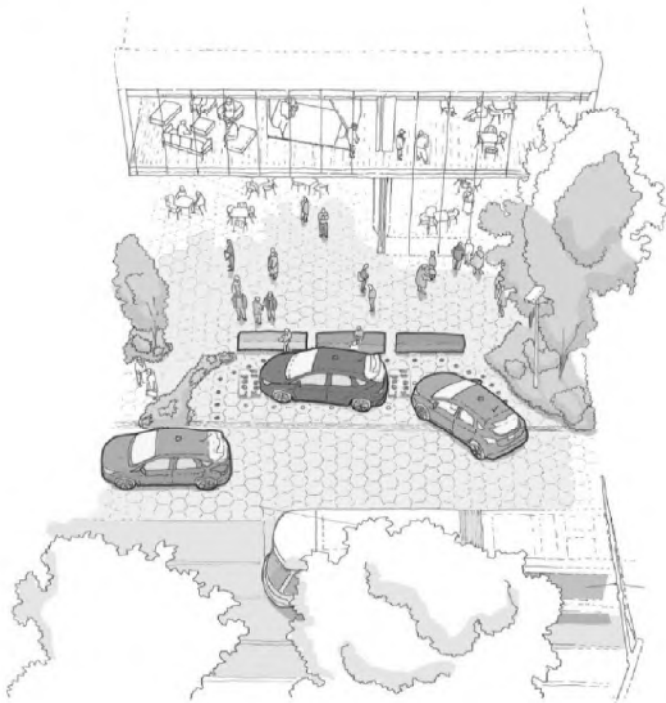


**Eliminating curbside parking —  
between a 91% to an 118% increase**



# Going Curbless

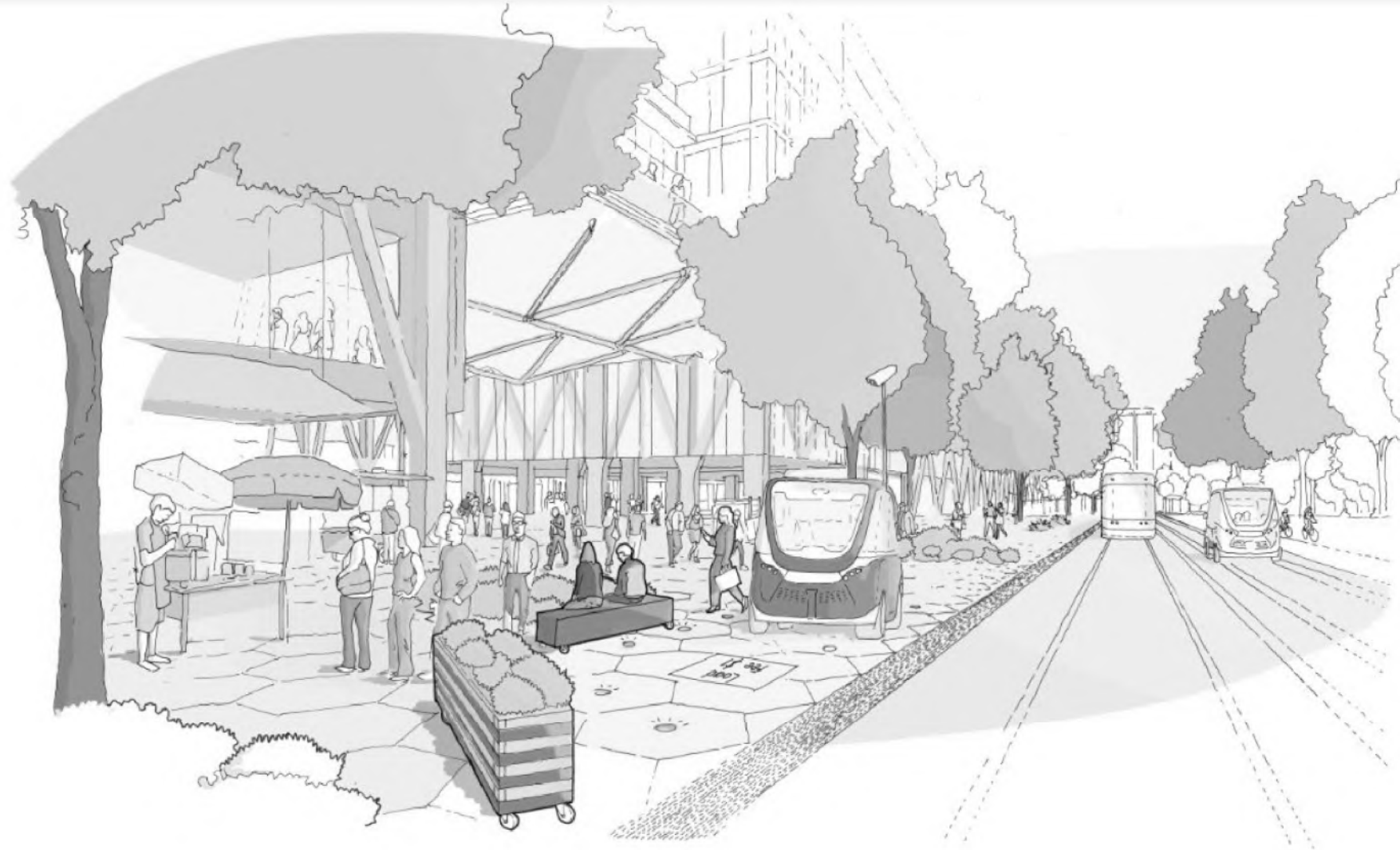
To facilitate the expansion and contraction of public space throughout the day, Sidewalk Labs proposes to design a fully curbless street. Unlike a typical street with a hard curb separating street from sidewalk, the entire street would be at one consistent grade, enabling the sidewalk to grow or shrink quickly and easily.





# Dynamic C

Additional, temporary space gains could come through the ability to eliminate fixed curbside parking and replace it with flexible drop-off and pick-up zones that would be actively managed throughout the day — a concept called the “dynamic curb” that is fully compliant with the Accessibility for Ontarians with Disabilities Act (AODA).





# Dynamic Curb

Dynamic curbs can provide flexibility to make the most of limited street space, enabling quick conversions between transportation and public realm purposes like plazas or special events like pop-up markets.





# Enhanced Tree Canopy

Taking full advantage of curbless streets and expanded sidewalks means thinking of streets more as parks — deserving of their own programming and flush with greenery.

On a boulevard like Queens Quay East in 2025, our successional planting strategy will support streetscapes that not only feel like parks but will create the conditions to support increased biodiversity and ecology. In a future Queens Quay (2035), when vehicle lanes could be closed thanks to self-driving vehicles, it would be possible to increase the tree concentration to 38.5 trees per acre, almost double the concentration achieved on Queens Quay West.

All of these trees would have the 30-cubic-metre soil volume set out in the Toronto Green Standards, resulting in healthier trees.

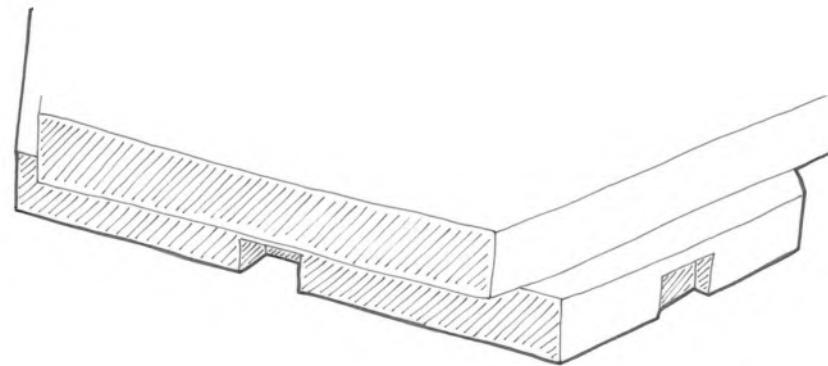
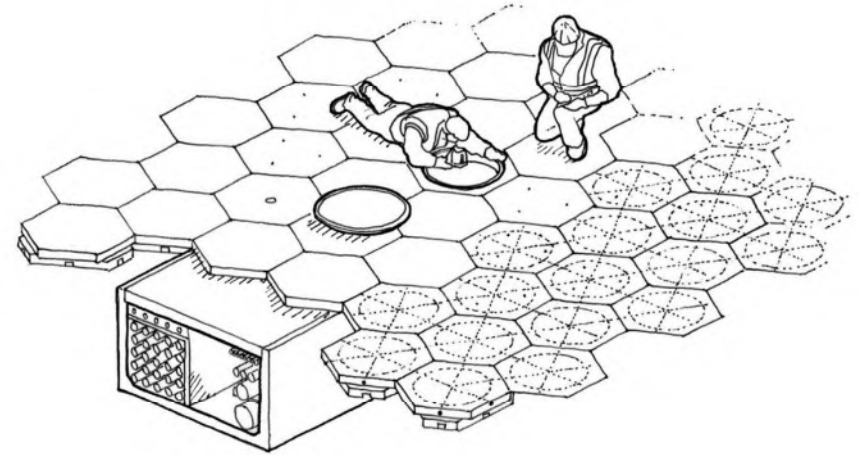
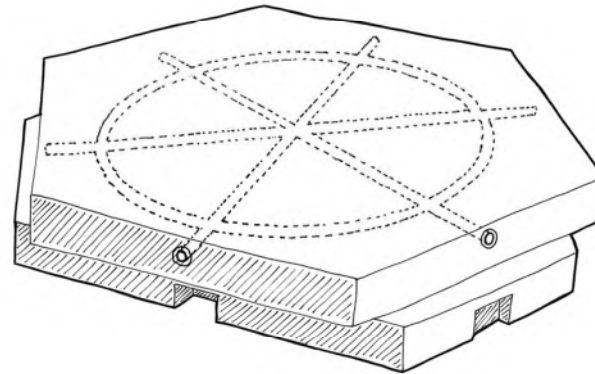




# Increasing Resilience and Flexibility with “Removable Urban Pavement”

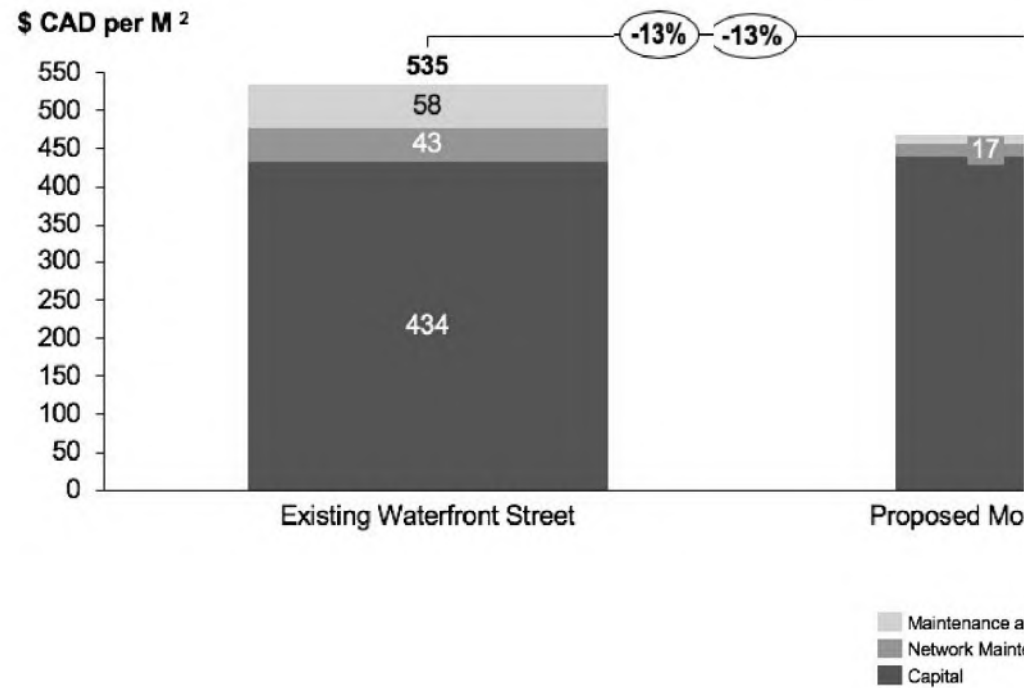
Reclaiming streets for people involves more than just filling space left over by vehicles. It also requires reconsidering how streets are paved, and the role that streets play in providing access to underground utilities.

- Fewer disruptions
- Greater flexibility
- Less cracking
- Lower long-term cost





# Increasing Resilience and Flexibility with “Removable Urban Pavement”



	Existing Waterfront Street	Proposed Modular Pavement Street
Per m <sup>2</sup>		
Capital cost	\$434	\$439
Over 30 years, per m <sup>2</sup>		
Maintenance and Repair	\$58	\$12
Network Maintenance	\$43	\$17
Over 30 years, per m <sup>2</sup> <sup>56</sup>		
Total costs	\$535	\$468



# Increasing Resilience and Flexibility with “Removable Urban Pavement”

Heated



Porous



Lighting





## Making public space more usable, more of the time

**Reinventing the Role  
of the Ground Floor**

**Designing an  
Outdoor-Comfort System  
for All Seasons**



# Ground Floor Experience

We seek to create  
a ground floor that  
facilitates human  
connection  
and helps the  
community thrive

## Reducing barriers

- Easier to start new business
- Easier to experiment

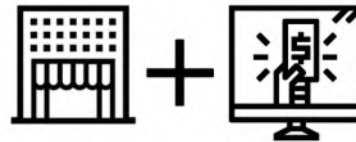




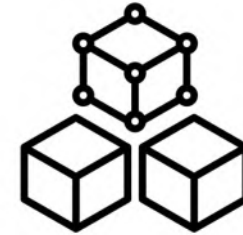
## Ground Floor Tool kit



Program  
Vision



Physical & Digital  
Platform



Innovative Tools  
& New Business  
Models



## Ground Floor Tool kit



Program  
Vision



Physical & Digital  
Platform



Innovative Tools  
& New Business  
Models



1

## Focused

A program vision that's shaped for and with the community

2

## Experimental

An attitude of optimism, playfulness, and trial

3

## Diverse

Not just retail, not just parks, not just offices

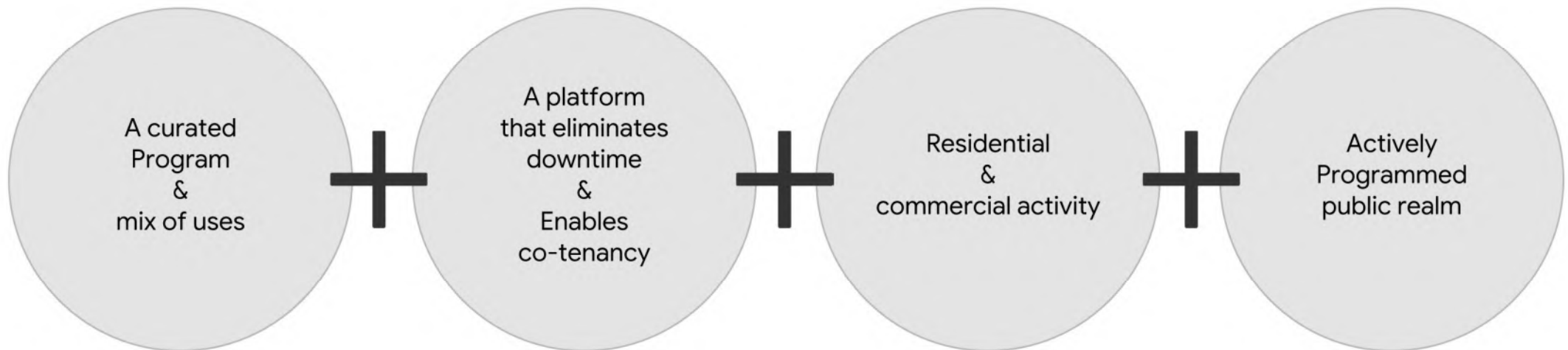
4

## Active

Residents, workers, and visitors buzzing in and out 18 hours a day



**Our ground floor is 25% more active  
than a typical street**

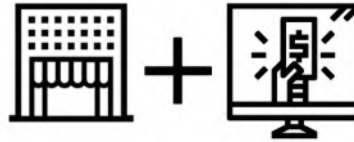




## Ground Floor Tool kit



Program  
Vision



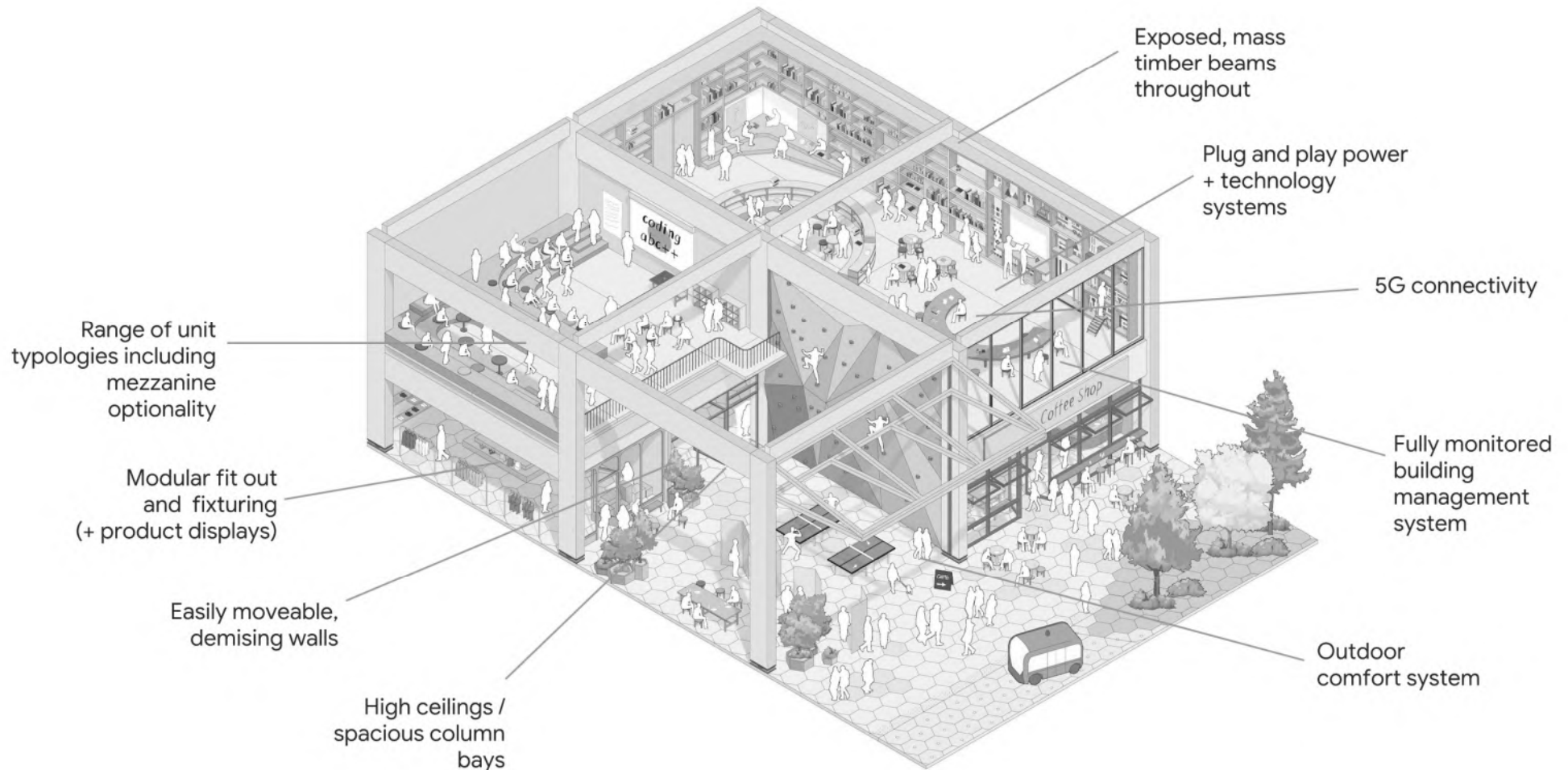
Physical & Digital  
Platform



Innovative Tools  
& New Business  
Models



# Physical Platform: Functional but Flexible





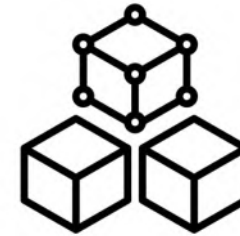
## Ground Floor Tool kit



Program  
Vision



Physical & Digital  
Platform



Innovative Tools  
& New Business  
Models





## Align

landlord/tenant  
incentives



## Reduce

the cost  
of entry



## Ease

(and welcoming)  
experimentation  
in place



## Enable

quicker and better  
feedback loops so that  
you can improve your  
business through  
experimentations



## Help

you better  
understand and  
connect with  
your customers

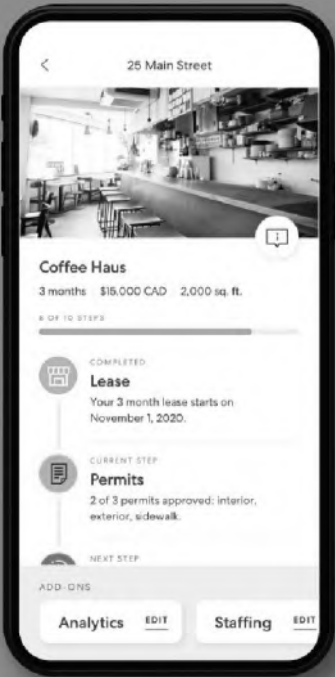


# Start Your Business with Minimal Risks

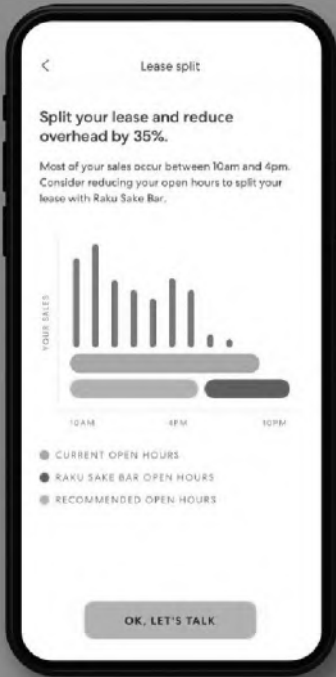


## How 'Seed Space' Empowers Businesses

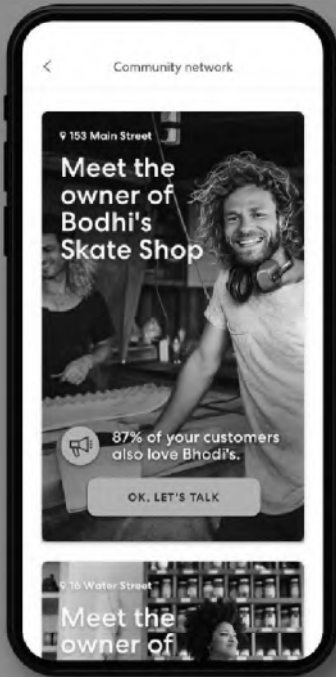
Flexible lease terms and tailored space recommendations break down barriers to entry and open pathways to low-risk explorations.



A guided and expedited process offers full transparency of the necessary steps with expertise to support planning and management for a space.



Adaptable spaces and leases help merchants maximize space utilization while fostering joint ventures.



A nurtured network of merchants can bond and unite for better business and neighbour experiences.



# Designing an Outdoor Comfort System for All Seasons

For centuries, cities have used architecture to moderate the weather and keep public life active on the street. In the late 1800s, as historical photographs show, Toronto was filled with a maze of awnings that extended from storefronts and glass arcades to cover alleyways, providing protection from the sun, snow, and rain.



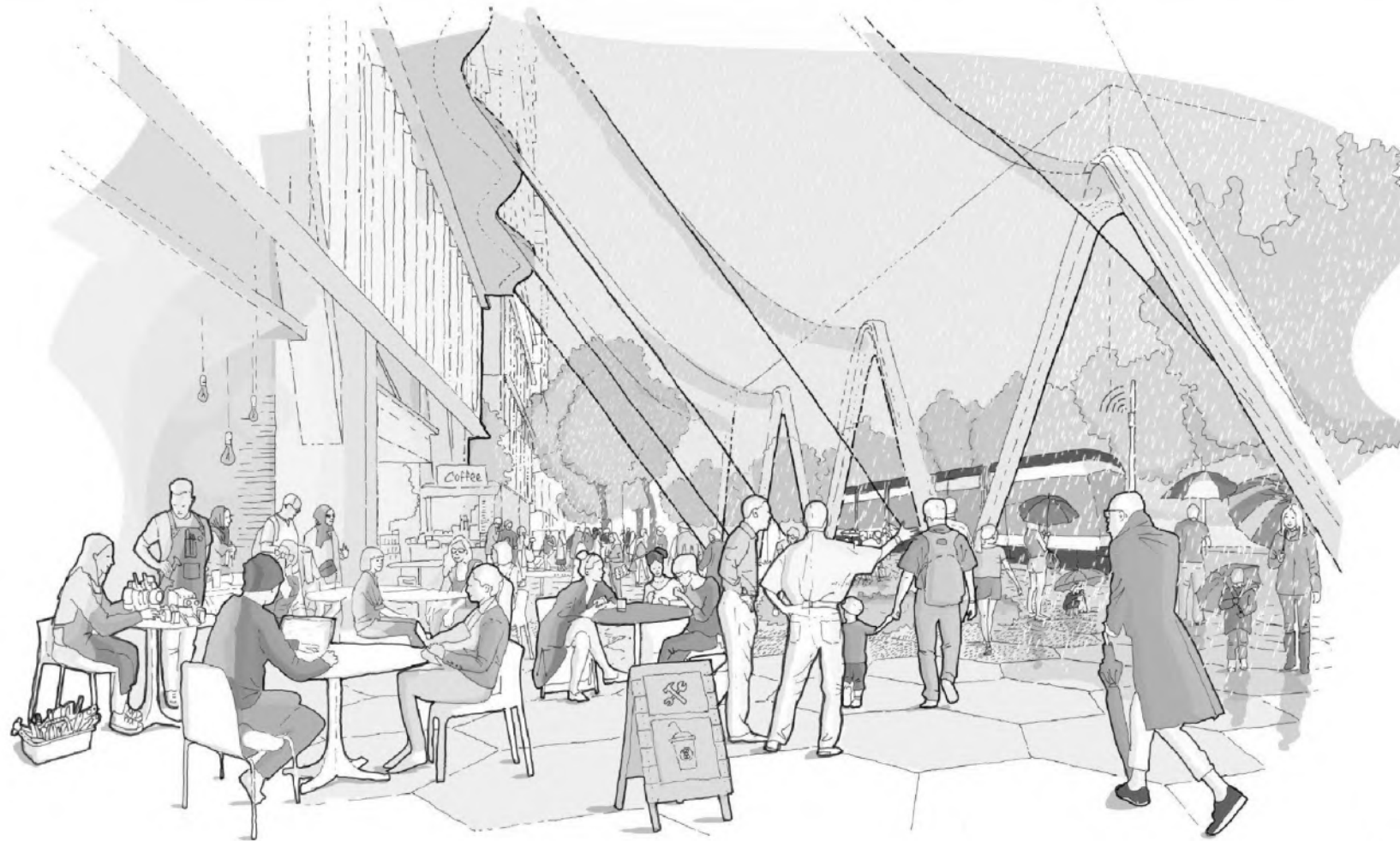


# Designing an Outdoor Comfort System for All Seasons

After analyzing climate data and studying how it impacts street grids and buildings, Sidewalk Labs has developed a replicable system of weather-mitigation tools and architectural interventions that could help dramatically increase outdoor comfort.

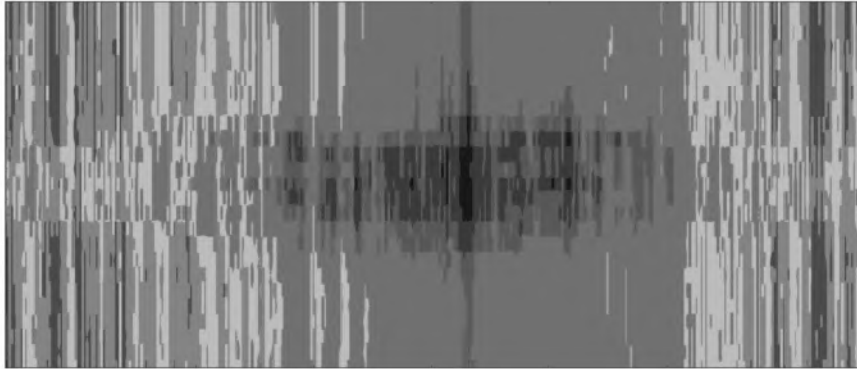
This system would leverage the latest advances in lightweight material technology, and could respond in real time to changing weather.

Systematically applied in Quayside, this approach to weather mitigation would increase the hours it is comfortable to be outdoors by 35 percent, drawing more people into public spaces, together.

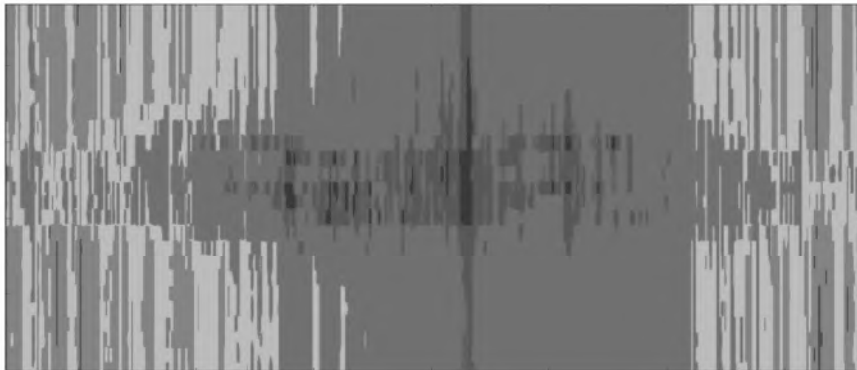




# Designing an Outdoor Comfort System for All Seasons



**This chart shows baseline outdoor comfort levels for Quayside, based on the Universal Thermal Climate Index.** Red areas indicate times when it is uncomfortable to be outside because it is too hot, blue areas show when it is too cold. Green represents times that are comfortable. Because microclimates are complex and dynamic, this methodology focuses on improving comfort in key locations within a neighborhood, such as pedestrian walkways, plazas, and parks. The metrics in this chart refer to these locations.



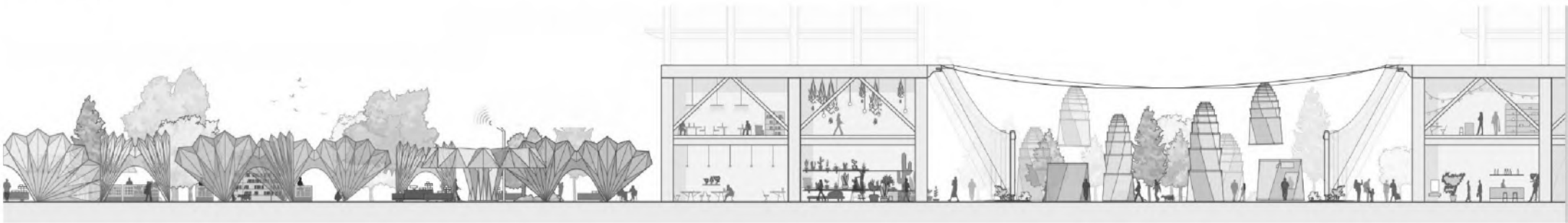
**This chart shows outdoor comfort levels for Quayside with planned outdoor comfort interventions applied to the neighbourhood site plan.** Relative to a typical development on the waterfront, which is comfortable outdoors for 1,653 daylight hours per year, Sidewalk Labs' proposed suite of weather-mitigation tools would make Quayside comfortable for 2,225 hours—an increase of 572 hours, or 35 percent.



# Designing an Outdoor Comfort System for All Seasons

To create a system that proactively predicts and plans for outdoor comfort, Sidewalk Labs worked in close collaboration with multiple partners. RWDI, a team of Toronto-based climate engineers, ran climate analyses for Quayside and the broader eastern waterfront. They collaborated with PARTISANS, a Toronto architecture firm with expertise in new materials and tensile structures, to help iterate on architectural interventions in response to climate data.

Three prototypical architectural interventions formed an initial set of tools that designers could adapt and recombine to meet the outdoor comfort targets of a specific site: a Raincoat for the building's edge, a Fanshell for open spaces, and a Lantern Forest for urban canyons (spaces between buildings).





## Ensuring Open Space Is More Responsive

**Establishing an  
“Open Space Alliance”  
to Coordinate  
Programming,  
Operations, and  
Maintenance**

**Enabling the  
Community to  
Shape and Program  
Public Spaces**

**Creating Proactive  
Maintenance  
Systems to Anticipate  
and Solve Problems**



# Open Space Alliance Purpose

The Open Space Alliance (OSA) is the proposed non-profit steward of open space at Quayside. It will convene residents, commercial tenants, landowners, and government partners to...

1

Create an open space network that is well programmed, well maintained, and sets a new bar for environmental performance, benefiting the community and the City

2

Create a dynamic, inclusive, and seamless open space experience that establishes a unique sense of place and generates value for the neighborhood

3

Create conditions for tech exploration in programming, operations, and maintenance, piloting approaches that improve access to and enjoyment of open space

4

Create a mechanism for operating open space that is viable over the long term, including sustainable funding, and that ensures public-private sector knowledge sharing

The OSA's core capacities are programming, operating, and maintaining (POM) open space



# We want to create a seamless public realm experience, which requires spanning multiple landowners and open space typologies

Quayside Open Spaces by Ownership



Legend

- PF&R
- Private
- Right-of-way
- Ports Toronto
- TBD (Right-of-way)
- TBD (Parks)

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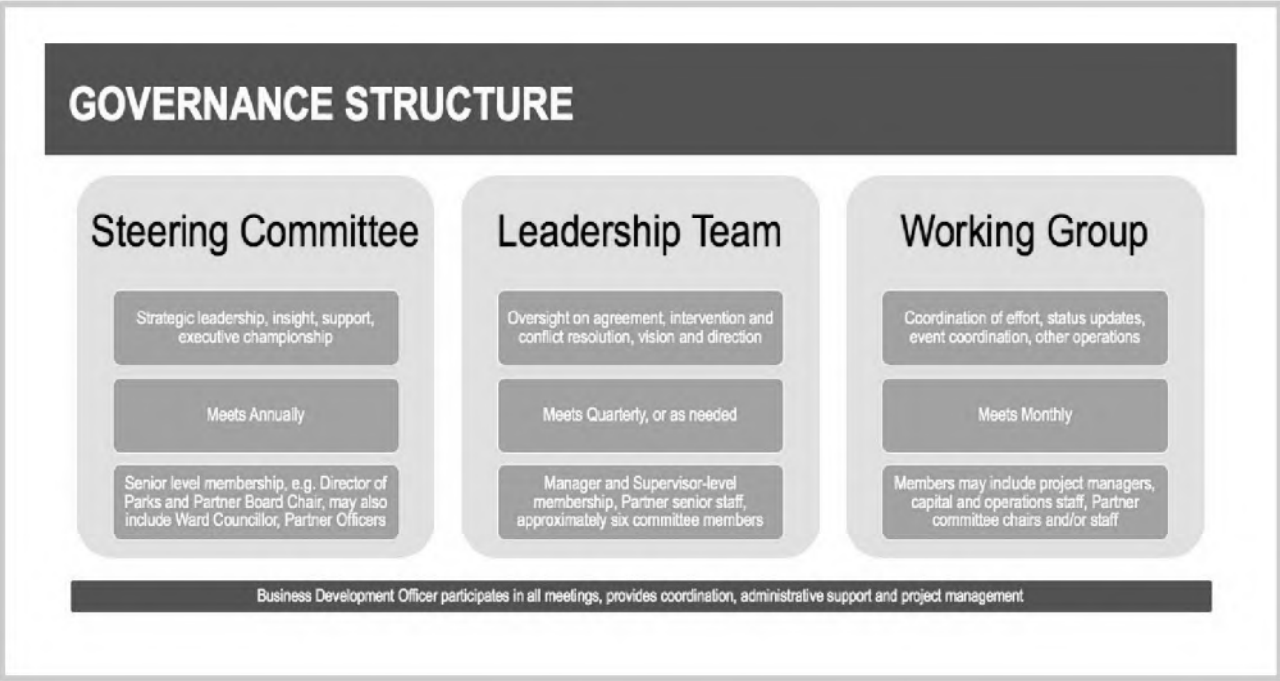
# What we learned: These are not new considerations—the City is increasingly crafting CMAs with outside entities

Many popular destinations now benefit from funds or staff in addition to those supplied by the City.

The City negotiates Collaborative Management Agreements with **non-profit institutions** and **business coalitions**. The split of responsibility and funding is negotiated on case-by-case basis.

Partners always need to agree to meet City standards regarding state of good repair, public access, signage, and security.

**Collaborative Management Agreement (CMA) Template**  
Sidewalk Toronto will need to work with the City to set up a series of oversight bodies to help structure the entity in the next few years.





# What we learned: There are many tried and tested non-profit institutions in Toronto, which we will model the OSA after

## Brickworks



Land is owned by TCRA, and maintained by PF&R. Evergreen has lease on buildings and license to program, with revenue driven by office rents and event fees.

## Grange



Part of the land is owned by AGO, part by PF&R. The city handles all basic O&M, but the AGO funds enhanced service. The park is exempted from standard permitting.

## Barbara Hall



Land is owned by PF&R, which handles all O&M, including fly by needle squad. Park is heavily programmed by 519, the adjacent LGBTQ community center.

## Wychwood Barns



Land is owned by PF&R but the barn is leased to Artscape. Artscape does all POM except for the dog run. Its revenue comes from office rents and event fees.

## The Bentway



Land is owned by Transportation, but all POM is performed by the Bentway conservancy, which has funding for eight years via a grant from private philanthropy.



# What we learned: Key takeaways from our prior conversations on the entity

01

The entity should be a non-profit if it is going to manage space across jurisdictional boundaries

02

The design of the entity should facilitate capacity building and cross pollination of learning back to the City (e.g. through secondment)

03

On dedicated parkland, the parks must stay in public ownership and follow City rules regarding security and signage

04

The City wants to contribute O&M funds, but this will not cover the extent of the POM for newly created open spaces

05

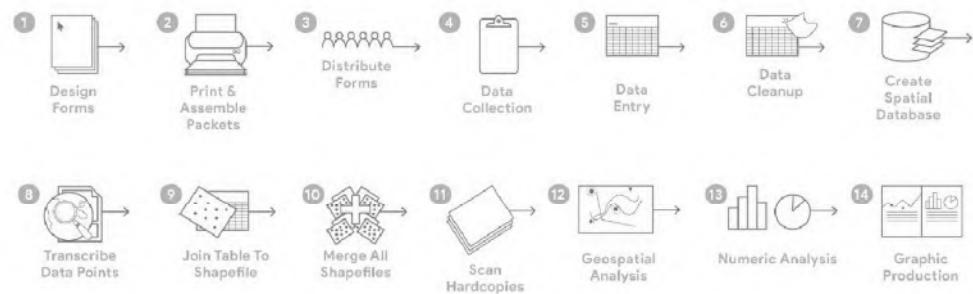
Sidewalk Toronto should propose a sustainable funding model



# Helping communities measure impact and drive change

Digital tools that make measuring the success of public spaces easier for everyone, from community groups to municipalities, provide yet another way to encourage local participation and programming.

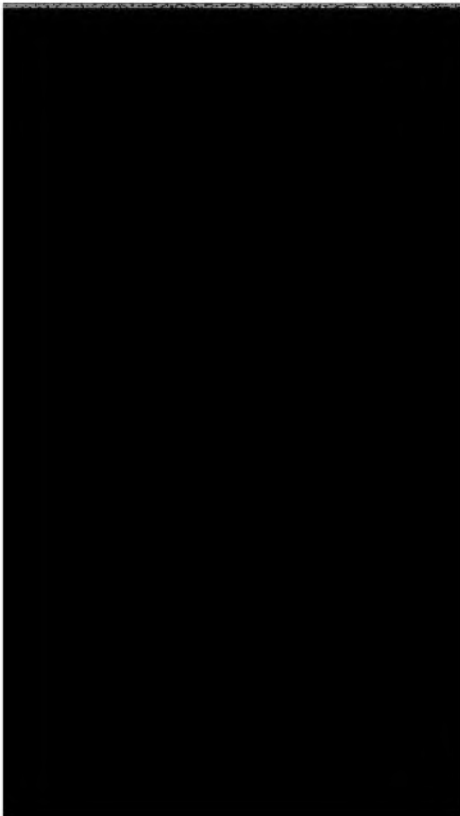
## Managing a Public Life Study Today



## Managing a Public Life Study with CommonSpace



Cities around the world are already working on ways to improve public life data collection. This process diagram is sourced from SF Planning's mobile data collection pilot, one source of inspiration for CommonSpace. Source: [SF Planning](#)

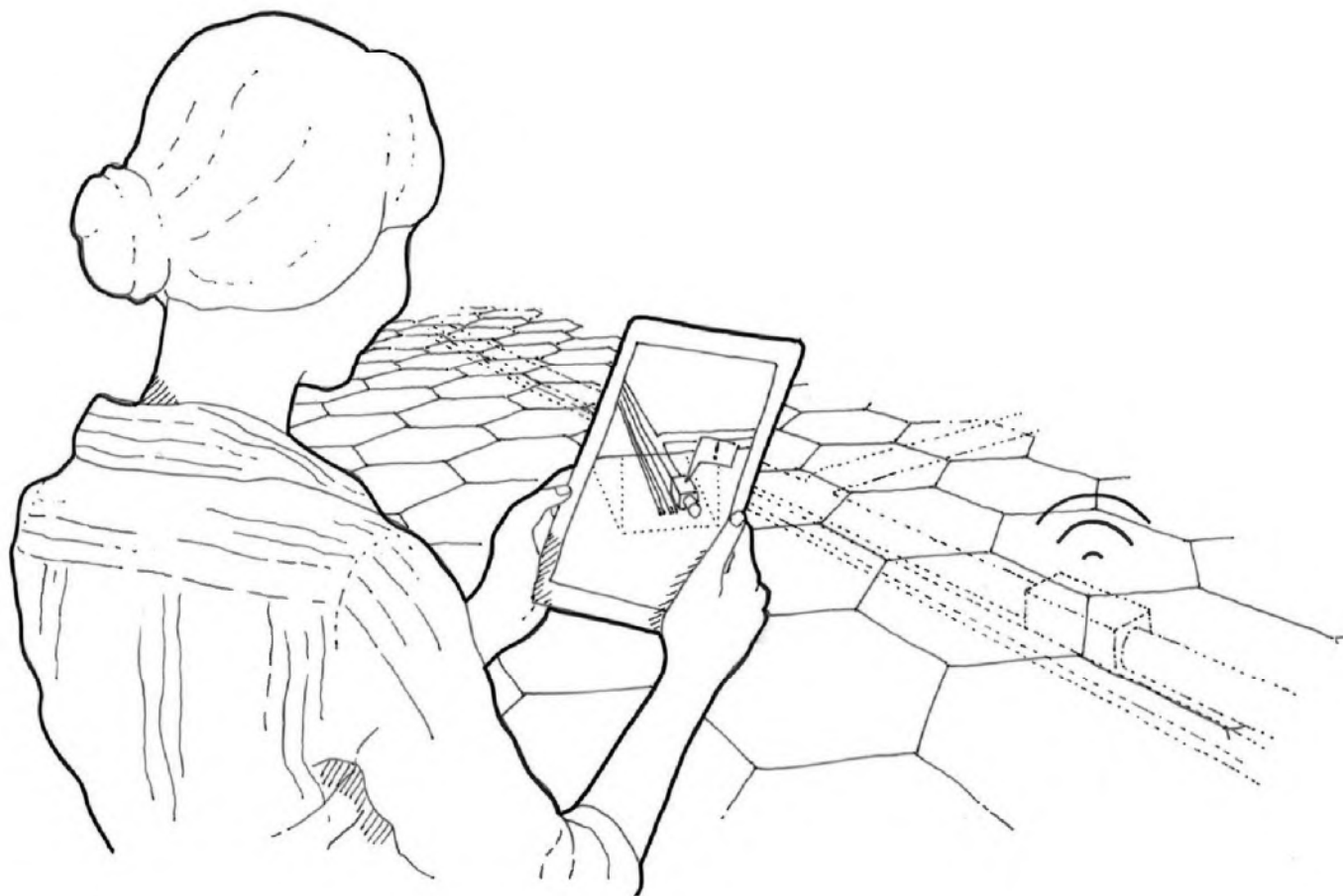




# Creating Proactive Maintenance Systems to Anticipate and Solve Problems

Applied in Quayside and across the waterfront, this digital infrastructure would lay the foundation for public spaces that are better operated and maintained, encouraging people to invest in their neighbourhood and form community bonds.

The Center for Active Design has found that people who report high levels of litter have 10 percent less community pride and believe 10 percent less frequently that community members care about one another than those who report low litter levels.





# The OSA is set up to plug into the broader urban innovation ecosystem through supporting pilots that can scale



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## Illustrative Example: Horticulture Maintenance

A designer plans a park with a specialized maintenance regime, but maintenance instructions are not readily available to the workers in the field responsible for pruning.

### Solution

1. A designer uploads maintenance instructions into the OSA's digital map of Quayside during design and construction.
2. Computer science students build an app that has image recognition functionality that workers can use to access instructions in the field.
3. The OSA agrees to instruct maintenance workers to use the app as part of a pilot.
4. The maintenance workers give feedback on the app, which the students use to further improve the product.
5. The pilot is generally successful and is rolled out to other maintenance workers across Toronto.
6. The students seek venture funding to further develop their idea.



# The OSA would have a series of mechanisms in place to support capacity building and knowledge sharing

## Shared Decision-Making

- The City would have representation on the OSA board
- The City would have a role in selecting which pilots the OSA pursues

## Opportunities for Collaboration

- The City could opt to send maintenance employees to the OSA on secondment
- The City and OSA staff could train one another on their respective areas of expertise
- Both organizations could have regular workshops/touch points

## Frequent Open Access Reporting

- The OSA would publish an annual report
- The OSA could require that its pilot partners publish findings from their pilots, hosted in a public database



**Pages 81-91  
are withheld  
pursuant to paragraphs  
20(1)(b), 20(1)(c) & 20(1)(d)  
of the *Access to Information Act***

**\*\*\*\***

**Les pages 81-91  
Font l'objet d'une exception totale  
conformément aux dispositions des  
paragraphes  
20(1)(b), 20(1)(c) & 20(1)(d)  
de la *loi sur l'accès à l'information***



# Social Infrastructure

MIDP Briefing for Assistant Deputy Ministers

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ALEXIS WISE | SHAINA DOAR | ARIEL KENNAN | DINA GRASER | VANESSA PFAFF

03.22.19

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## Quality of Life for All

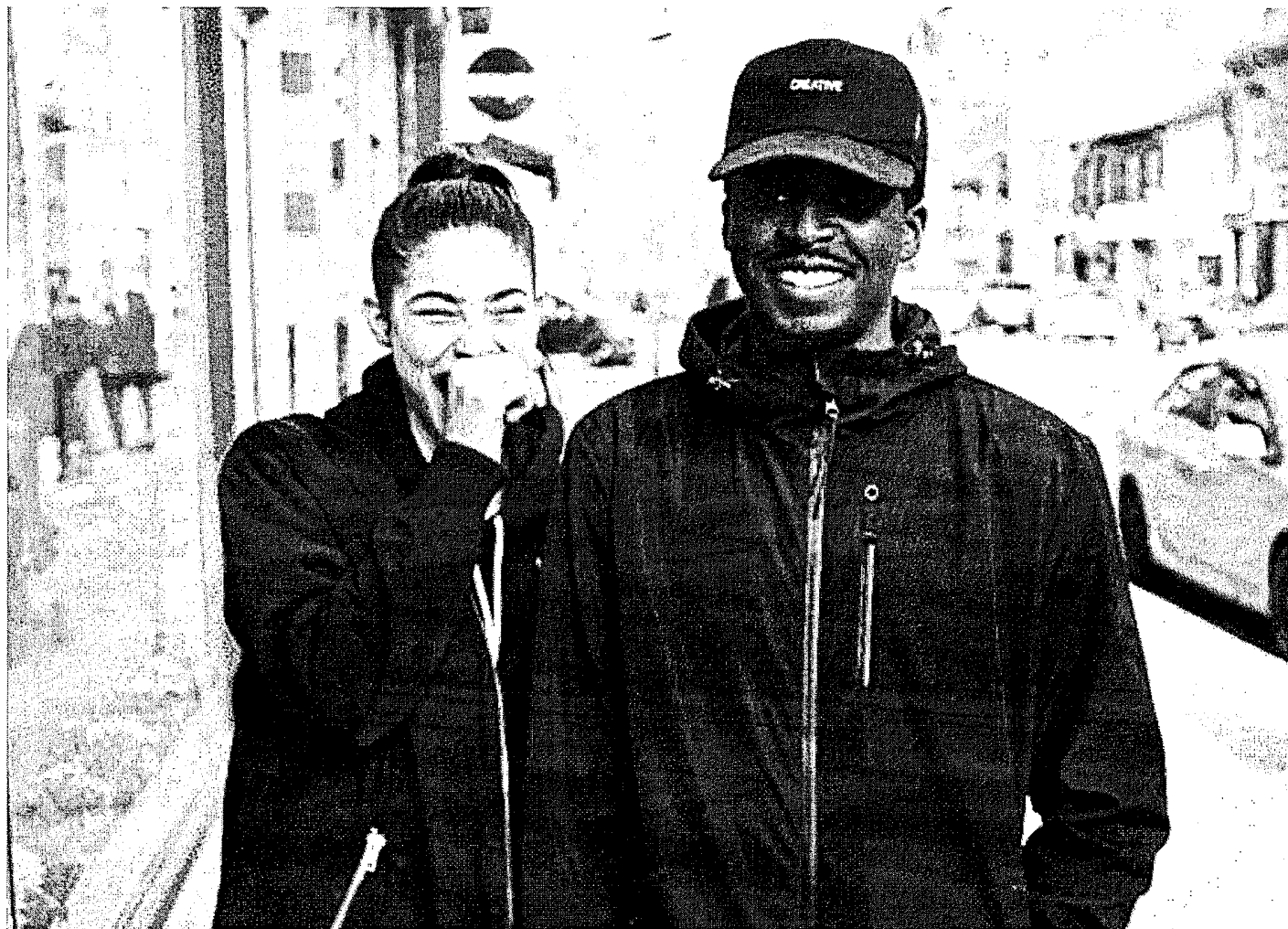
### Community Well-Being

The physical environment influences everyday life and its design plays an important role in supporting community well-being, enhancing quality of life and enabling healthy lifestyles. But it's not just about physical space - it's also about economic opportunity, community engagement and social connections.

### Diversity, Equity & Inclusion

Inclusive communities and economic growth require a commitment to values of diversity, equity and inclusion.

Sidewalk Toronto is planning a neighbourhood where all are welcome and have an opportunity to belong and thrive.



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# Centering Values of Diversity, Equity + Inclusion

Our goal is to co-create an inclusive community with the citizens of Toronto: a place where all who live, work or visit can belong and thrive. This aspirational vision calls on us to centre **values** of diversity, equity + inclusion. This formula is our framework for understanding these values and how they are placed within the SWT context.

DIVERSITY	+	EQUITY	+	INTENTION	=	INCLUSIVE COMMUNITY
We recognize and honour the range of visible and invisible qualities, experiences and identities that shape who we are, how we think and how we engage in and are perceived by the world.		Creating and enabling opportunities for all people; identifying and removing systemic barriers to participation so that every person has a right to fair, just, and respectful access, paving the way for equitable outcomes.		Deliberately and thoughtfully designing spaces, services, and programming that are welcoming, iterative, responsive and accessible to a diverse population, including people who face multiple barriers.		A group of people who share a sense of belonging, trust, safety, and collective stewardship in a place where everyone feels welcome and has an opportunity to flourish and thrive.



## The Following Guiding Principles are our Pathway to Centering DEI at Sidewalk Toronto

- **Inclusive Design** - we design spaces, systems and services for 100% of the population, including people who face multiple barriers.
- **Accessibility** – we prioritize accessibility of place, transportation, services and opportunities to ensure SWT is physically, socially, economically and culturally accessible for all, including residents, workers, and visitors.
- **Affordability** – we include options for housing, retail, programming and amenities that are affordable for people of all income levels, including those who are low-income.
- **Accountability** – we provide tools and adopt agile governance structures that enable those who live and work at Quayside to participate in shared stewardship of the community, and track and report on key metrics annually.
- **Innovation** – we embrace innovation in many ways, including centering values of diversity, equity and inclusion across all parts of the project from the very beginning, taking a people-first perspective.
- **Collaboration** - we work with our community and trusted institutions to co-create infrastructure, programming and services that meet community needs on an ongoing basis; we seek to create an ecosystem where people can connect with each other, influence their environment, and contribute to community wellbeing.

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## What We've Heard: Public Engagement

Over 18,000 Torontonians have been engaged thus far in roundtables, working groups, codesign sessions and events at our coworking space. Diversity, equity and inclusion are top of mind.

In these forums, and in more targeted engagement sessions, we heard common themes. People called for:

- Community accountability and governance structures
- Meaningful economic participation
- An appreciation of context
- The responsibility to Indigenous population
- A place that is overtly welcoming to a broad range of people
- Affordability not just of housing but amenities and retail
- Concrete and intentional commitments
- Measurement of progress and outcomes against goals

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## Stakeholder Meetings

Over 100 meetings with a wide range of stakeholders, from nonprofit and community organizations to foundations, workforce and employment agencies, labour training centres, members of the Indigenous community, private sector companies, post-secondary and training institutions, government representatives, and thought leaders.

These include meetings with:

- STEM Club, Rexdale Community Hub
- Lived Experience Advisory Group, City of Toronto Poverty Reduction Strategy
- Toronto Community Benefits Network
- Toronto Region Immigration & Employment Council (and PINs, Professional Immigrant Networks)
- Miziwe Biik Aboriginal Employment & Training
- United Way of Greater Toronto
- CivicAction
- East Scarborough residents (via E. Scarborough Storefront)
- Anishnawbe Health



## Indigenous engagement

- Engage the MCFN as treaty holders (ongoing), together with Waterfront Toronto; reflect and acknowledge Indigenous presence on the site, ensure Indigenous participation in workforce and economic opportunities, and create Indigenous curriculum at the elementary school

## Accessibility

- **Draft Accessibility Principles** have been co-created with members of the accessibility community to, among other things, enable experiences that were not possible before and design predictable, intuitive experiences throughout every aspect of the project (physical and digital)

## Workforce Development

- Take a proactive community benefits approach, building on the WTEI to ensure opportunities for historically disadvantaged and marginalized groups in training and employment in construction and tech jobs; create Sidewalk Works to convene employers and develop programs and partnerships to meet employer demands.

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## Housing

- 40% of units will be housing that is affordable, including 5% deeply affordable and 20% geared to middle incomes; 50% will be purpose built rental, 40% will be 2BR+, 5% new shared equity option and 5% co-living

## Learning & Career Opportunities

- A public elementary school that includes a childcare facility; lifelong learning opportunities that support continuous learning and growth

## Health & Wellbeing

- Design the physical environment to support healthy living and community wellbeing, including supporting seniors to age in place; dedicate community space at affordable rates for health and well-being services and programming, including 15K sq ft Care Collective

## Civic Engagement

- Diminish the digital divide with a robust, accessible digital infrastructure that allows every individual to connect to high-speed internet, access digital devices, tools, and services, and receive training and support; co-create digital tools that ensuring visibility into and influence over decision making



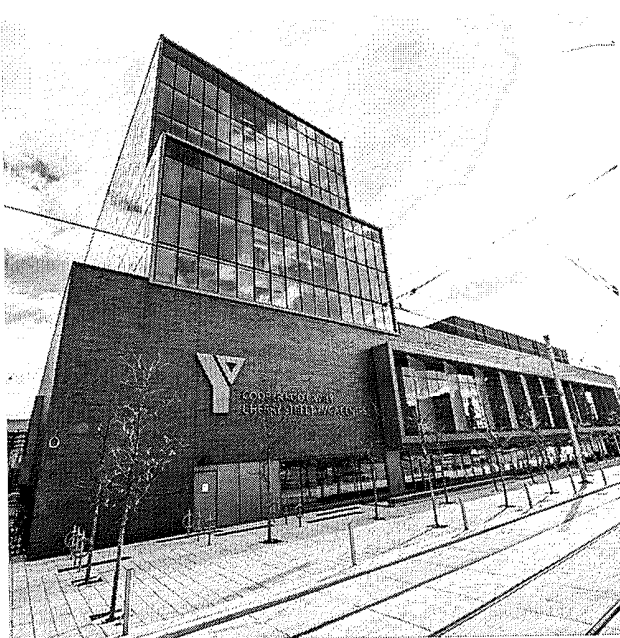
# Social Infrastructure

**Social infrastructure** is comprised of the **physical spaces, services and digital tools** that shape our interactions, organize our community, and provide the supports necessary to thrive in our everyday lives.

It is the thread that supports our health and well-being, ties together our communities, and affords us opportunities to reach our highest potential.



## Examples of Great Social Infrastructure on the Waterfront



Toronto Cooper Koo Family  
Cherry St. YMCA Centre



Child Care and Recreation  
Centre in East Bayfront



Sugar Beach

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# The MIDP is responsive to planning requests, including the Downtown Community Services and Facilities Strategy (CS&F) — an official ask from the City

## We've accounted for the articulated needs in Quayside

- Site for a primary school co-located with other services (CS&F)
- Request for co-location of necessary services (TOCore)
- Desire for integrated health and community service planning (MOHLTC)
- Request for hyper-local, flexible service delivery models (TPL)

## And have aligned our efforts to CS&F Key Strategic Directions (not exhaustive)

- “Developing partnership/co-location opportunities with City Divisions, agencies and boards and community-based Organizations;
- Identifying innovative and integrated service delivery models to address CS&F needs;
- Ensuring that new space/facilities keep pace with growth over a 25-year time horizon;
- Prioritizing space/facility opportunities through collaboration with sector partners”

## Downtown CS&F Strategy

*“The Official Plan establishes and recognizes that strategic investment in social infrastructure encourages greater levels of equity, equality, access, participation and social cohesion across the City and within communities.”*

— Downtown CS&F Strategy



Proactively planning for health (not just health care), especially in rapidly growing urban neighbourhoods, is vital to ensuring the development of complete and healthy communities.

While, Sidewalk Toronto is focused on the redevelopment of Quayside, adjacent communities along the eastern waterfront are also growing, providing a unique opportunity not only to meet increasing demand for services but to do so in new ways that better address current needs and challenges.

## T0core: Estimated Population Percentage Increase



# 150%

T0core planning documents estimate population growth of over 150% for the neighbourhoods surrounding Quayside



# Sidewalk Labs' role in Social Infrastructure in the Sidewalk Toronto project

## Sidewalk Labs will:

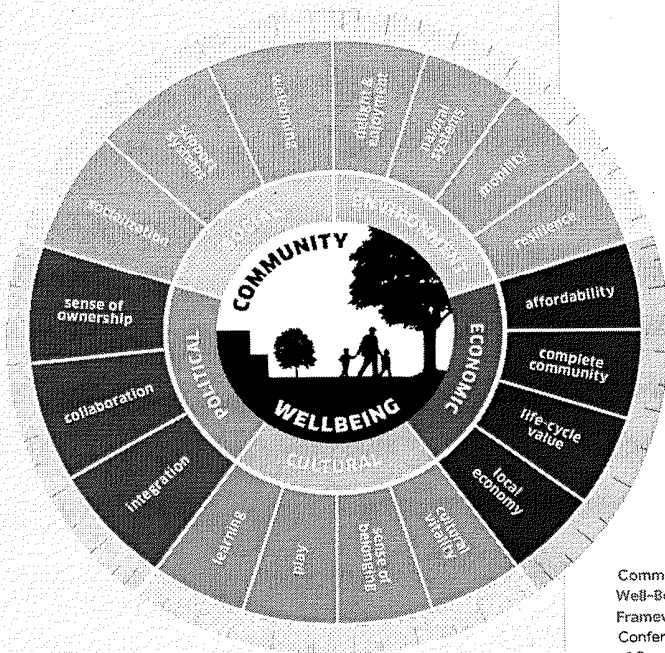
- 1) **Create the conditions** to enable innovation in social infrastructure spaces, delivery and digital complements
- 2) **Dedicate affordable, adequate space** for social service delivery
- 3) Support innovative programs, digital tools, and thought leadership with **technical support and resources**
- 4) Exemplify innovation with **Catalyzing Initiatives** when a local partner desires the support

## Sidewalk Labs will NOT:

- A) Deliver services
- B) Prescribe service delivery models



## Designing a Healthy Place



Community  
Well-Being  
Framework  
Conference Board  
of Canada and DIALOG

Sidewalk Labs will demonstrate best practices with regard to urban design in Quayside:

- Dense, mixed-mixed use development with 35 percent of development devoted to office, retail, community, and maker spaces
- Safe and accessible active transportation, facilitated by strong cycling and pedestrian infrastructure
- Good access to transit & green spaces
- High-quality affordable housing options and accessible, adaptable buildings
- Buildings that embody biophilic design principles, optimize for natural light, use healthy materials, and ensure indoor air quality
- Nearby essential health and social services, and spaces for community-based programming

And will catalyze planning across the IDEA District that prioritizes community health and well-being:

- Propose development requirements to enhance community well-being
- Develop generative design software to enable planners to evaluate the impact on health of different urban planning and design decisions

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# Social Infrastructure in the Site Plan

## Health & Well-Being

Spaces dedicated to health & well-being



## Civic Life

Spaces dedicated to fostering community participation



## Arts & Culture

Spaces for creative expression & production



## Parcels 1 & 2

BONNYCASTLE ST.

LAKE SHORE BLVD EAST

PARLIAMENT STREET

SMALL ST.

QUEENS QUAY EAST

MARTIN GOODMAN TRAIL

VICTORY SOYA  
MILLS SILO

MERCHANTS WHARF

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## Example

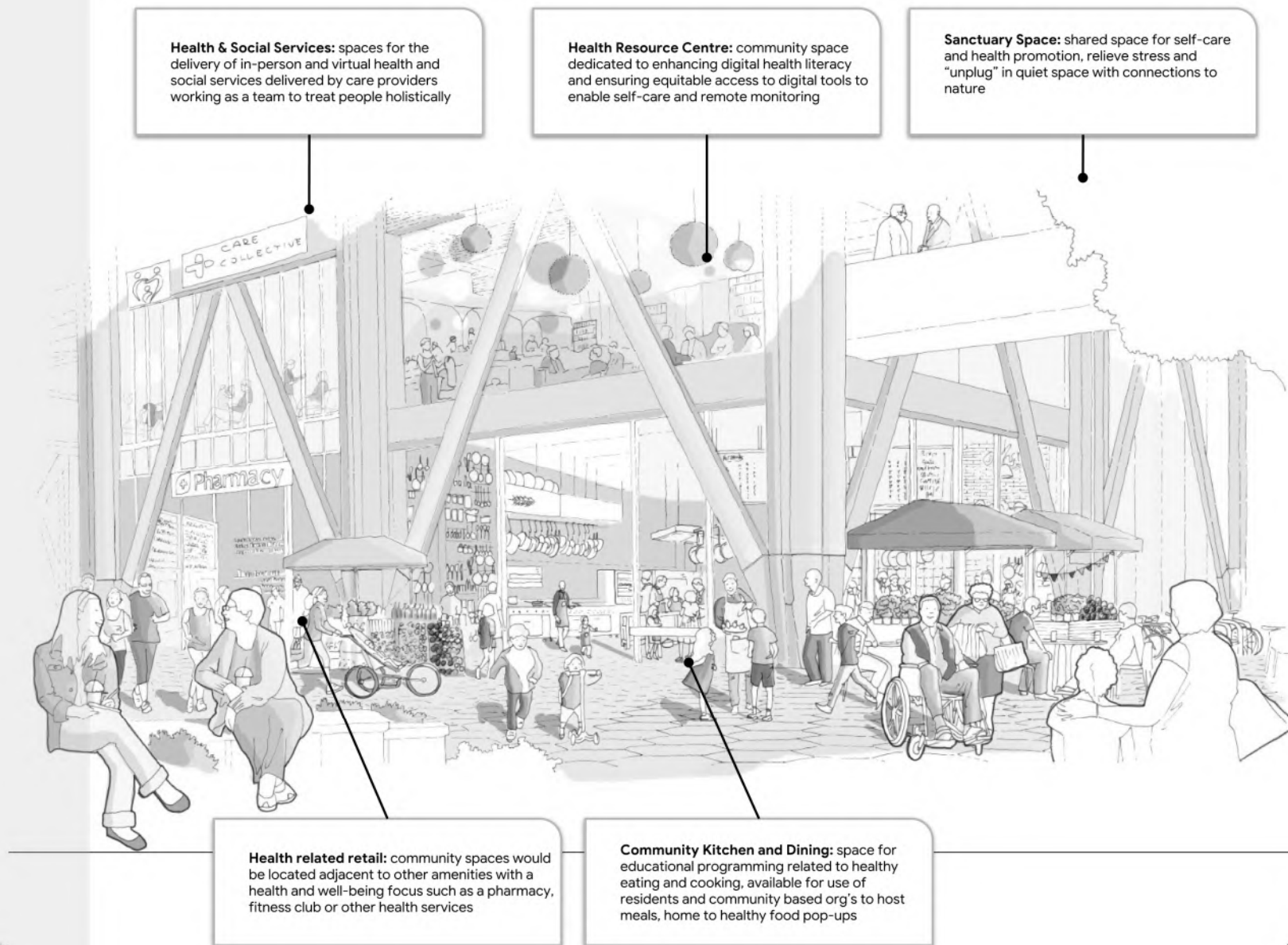
# CATALYZING INITIATIVE

## The Care Collective

A nearby place to access health and community services & find support to better care for yourself

Part of a collection of social infrastructure spaces that feel welcoming to all and together meet the needs of the community

Activated by local service delivery partners- United Way to take the lead



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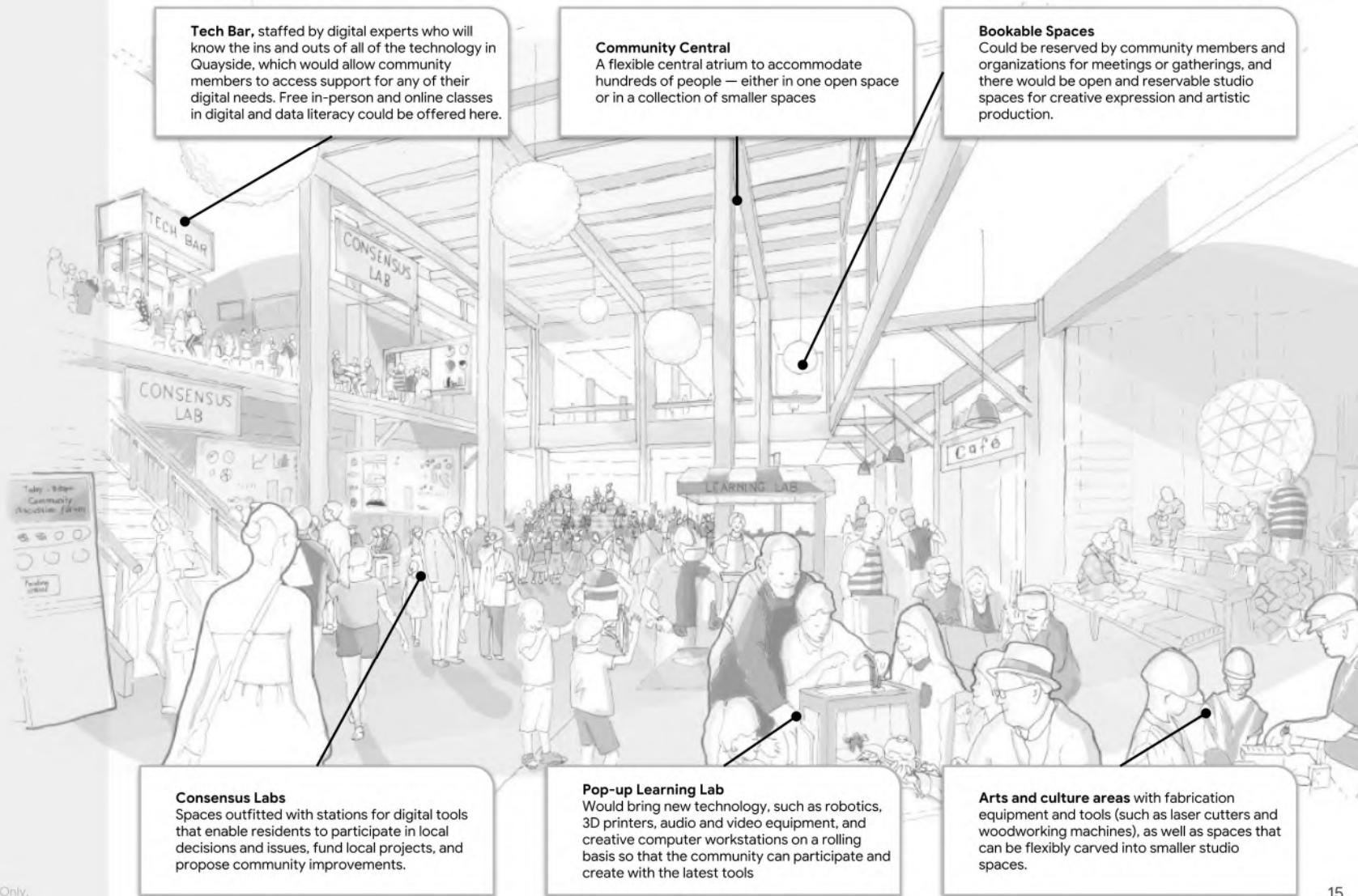


## Example

# CATALYZING INITIATIVE Civic Assembly

A central location for community connection and participation that would be the heart of civic life in Quayside — a place to connect with neighbours, learn about what is going on in and around the neighbourhood, share ideas, express creativity, engage in cultural activities, and get technical assistance on digital tools.

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## Example

# CATALYZING INITIATIVE Collab

Collab is a digital tool that increases community influence in more convenient and personalized ways.

In our initial prototype, built with Digital Public Square, community members can influence the programming of public spaces, through exploring tradeoffs and sharing ideas and suggestions.

### Collab will:

- Be available to any neighbourhood
- Be accessible and open source
- Inspire companies, nonprofits, and government bodies to develop similar tools that could make engagement more convenient, secure, and relevant than ever.

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# Social Infrastructure in the Site Plan

## Education and Lifelong Learning

Primary School and Child Care



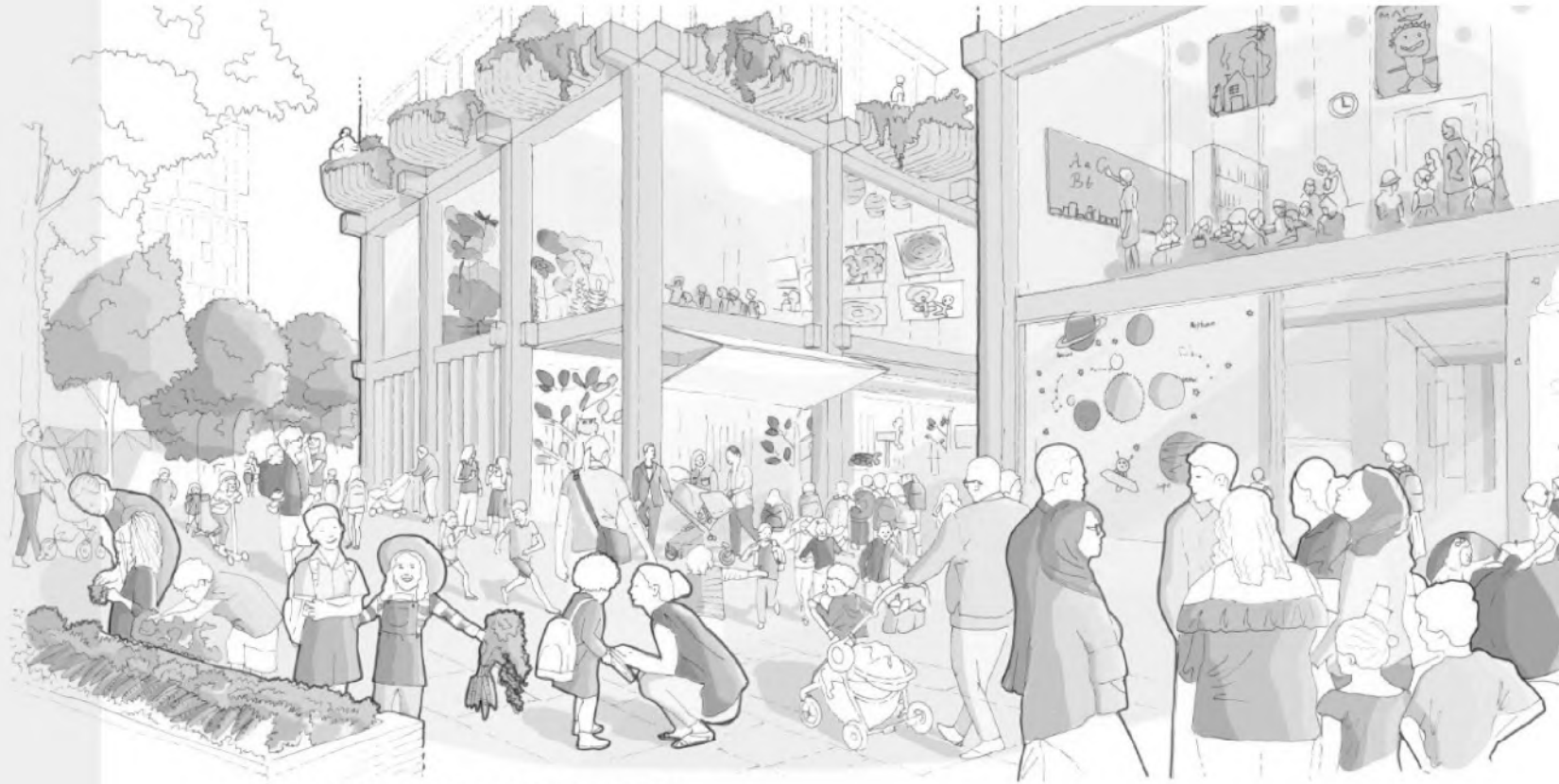
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## Example

# CATALYZING INITIATIVE Space for a PreK-8 school

Sidewalk Labs proposes to include 55K sq ft of space in a mixed use building for a PreK-8 school



- Working with TDSB to locate a school
- Supportive services such as childcare co-located or located nearby for convenience and coordination

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## Example

### CATALYZING INITIATIVE

Library everywhere  
collaboration  
with Toronto  
Public Library

Sidewalk Labs and Toronto Public Library are exploring a collaboration to integrate library programs, services and spaces throughout Quayside.



Sidewalk Labs and Toronto Public Library collaboration could include:

- Opportunities for **pop-up learning labs or lending services**
- The offering of **TPL-developed classes in the community**, particularly those that support data, AI, and algorithmic literacy
- **Digital consult rooms in library branches or pop-up library** stations that can allow residents to easily book a private, session or meeting with service providers
- TPL's **Innovator in Residence** program
- Working with TPL, employers, and other institutions, such as George Brown College, to explore the development of **new training pathways**



# Thank you.

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20(1)(b), 20(1)(c) & 20(1)(d)  
de la *loi sur l'accès à l'information***



Meeting between Waterfront Toronto (WT) Staff and INFC officials – May 23, 2019, 1:00 – 2:30pm

- [REDACTED]
- **Geographic scope of the project:** [REDACTED]  
[REDACTED]
- **Proposed roles** [REDACTED]  
[REDACTED]
- **Conditions precedent:** [REDACTED]  
[REDACTED]
- **Stage-gating:** [REDACTED]  
[REDACTED]



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de la *loi sur l'accès à l'information***



## Initial Summary of MIDP and Federal Implications

On June 24, 2019, Waterfront Toronto released Sidewalk Labs' **Draft Master Innovation and Development Plan (MIDP)**. The MIDP is over 1,500 pages in length and is documented in four Volumes, including:

- I. **Overview:** Provides an overview of the project context and key highlights of volumes 1-3 of the draft MIDP.
- II. **The Plans:** Focuses on the development plan and the physical manifestations of proposed innovations within that plan. Volume 1 also includes a chapter on Economic Development, detailing the anticipated future economic impacts of implementing the MIDP, as envisioned by Sidewalk.
- III. **The Urban Innovations:** Outlines Sidewalk's proposed innovations across the five pillars of the MIDP: Mobility, Public Realm, Buildings and Housing, Sustainability, and Digital Innovation.
- IV. **The Partnership:** Describes Sidewalk's commercial proposal including, governance constructs, roles and responsibilities, transaction economics, stage gates, implementation plans and risk mitigation measures.

As an overarching introduction to its approach, the MIDP sets out a number of **Sidewalk's starting points and goals, and core commitments:**


Sidewalk is:	Sidewalk commits to:
<ul style="list-style-type: none"><li>• not seeking to sell personal information or use it for advertising</li><li>• not motivated by a desire to export Canadian talent or IP to the U.S.</li><li>• not trying to lead development of the Port Lands (their role as a real estate developer would be restricted to Quayside and Villiers West)</li><li>• seeking to demonstrate the impact of innovation on quality of life in cities</li><li>• seeking to earn a reasonable return on its \$50M initial investment</li></ul>	<ul style="list-style-type: none"><li>• advance a bold innovation agenda</li><li>• develop Quayside as a complete and inclusive community</li><li>• deliver a major economic development project</li><li>• serve as a lead developer of advanced systems</li><li>• serve as a technical partner and advisor, providing technical specifications and performance requirements to guide development, beginning with Quayside</li><li>• deliver essential technology</li><li>• provide optional financing for municipal, transit and other critical infrastructure</li><li>• unlock \$29 billion in third party investments</li></ul>



## Key Federal Implications

The MIDP is a lengthy and comprehensive document with a bold plan for developing the waterfront, and some of the proposed initiatives could have direct or indirect implications for the Government of Canada, including with respect to: **scale** (IDEA District); **digital and data** proposals; **public transit**; **economic development**; and, the innovation and funding **partnership proposal** (business case).

### I. Creation of an IDEA District and proposals "at scale"

- A prominent focus the MIDP is the creation of a geographically designed area called the **Innovative Design and Economic Acceleration (IDEA) District** that would "galvanize economic growth and foster productive exploration" through nimble governance and oversight, targeted regulatory adjustments, and innovative financing mechanisms.
- At roughly 345 acres if fully implemented, the IDEA District would extend well beyond the Quayside site 
- The Quayside project RFP focused primarily on the 12-acre Quayside site, while the 2018 Plan Development Agreement between Waterfront and Sidewalk allows for contemplation of ideas "at scale", to other parts of the waterfront area.
- As part of the **first phase**, the IDEA District would initially apply to Quayside and the adjacent 20-acre **Villiers West** site, which Sidewalk is seeking to acquire at a discounted rate through negotiation with the City. Sidewalk proposes to locate a new **Google Canada headquarters** and an **Urban Innovation Institute** at Villiers.
- Sidewalk also proposes a **second project phase**, subject to meeting phase one project milestones, asserting that the required infrastructure, investment, and advanced systems proposed in the MIDP would only achieve their full potential and become financially feasible at the scale of the **broader River District** (which includes Villiers Island, Keating East, McCleary, and Polson Quay); nor would a Quayside-only project achieve Waterfront's priority outcomes.



- The IDEA District would be supported by a **flexible regulatory framework**, or “Innovation Framework” consists of two parts: (1) a limited number of targeted adjustments to existing legal requirements that would facilitate innovation in the area (e.g., to permit the dynamic curb); and (2) Innovation and Design Standards and Guidelines, a series of enhanced requirements for new developments in the area that would require no further action by the three orders of government.
- The MIDP calls for **government to designate a public entity**, or “public administrator”, to serve as governance lead for the IDEA District, with authority to hold Sidewalk and others working in the district accountable for performance, to steer innovation strategy, and to oversee the governance structures needed to manage new district systems. The MIDP proposes that **Waterfront Toronto**, if given enhanced powers, could assume this role for the IDEA District.
- The MIDP sees the **development approval process for Quayside and Villiers West** as generally proceeding like a traditional development application, **led by Sidewalk as the vertical developer** (working with local partners), including in connection with the process for seeking zoning modifications.
- The **approval process for the broader River district** would undergo sequential, overlapping planning processes **led by the public administrator** of the IDEA District and coordinated with city staff.

## II. Digital and data-related proposals

- “**Urban data**<sup>1</sup>” would be widely collected within the IDEA District and would, according to the MIDP, lead to powerful insights that could transform urban planning policy, from building design to enabling new approaches to energy use regulation.
- While Canada has a strong foundation of privacy laws around personal information, and recognizes privacy as a fundamental human right

<sup>1</sup> Sidewalk defines “urban data” as information gathered in the city’s physical environment, including the public realm, publicly accessible spaces and even some private buildings. (Volume I, p. 232)



- [REDACTED]
- [REDACTED]
  - The MIDP proposes to establish a **set of core conditions** that would catalyze an ecosystem of urban innovation, including shared digital infrastructure, an open and secure approach to architecture and standards, a catalyzing set of digital services (some provided by Sidewalk), and a trusted process for responsible data use. See schematic in **Annex A**. (Volume 3, p. 380).
  - Noting that federal and provincial privacy commissioners would continue to oversee all privacy laws, the MIDP proposes to **create an independent data trust** that would establish Responsible Data Use (RDU) guidelines for the IDEA District. The data trust would manage a 4-step process for approving the **responsible collection and use of urban data**, based on assessments intended to extend beyond the traditional Privacy Impact Assessment.
  - The data trust would act as the independent steward/manager of data and digital infrastructure based on a charter to ensure beneficial collection of data and protection of privacy. It would ensure that value from data is returned to people, communities, government, industry and the society from where it is collected.
  - The Urban Data Trust's Chief Data Officer's decisions would be made to ensure that all actors in the IDEA District **comply with applicable laws, such as PIPEDA** and provincial or municipal privacy laws. The Chief Data Officer and a board overseeing the data trust would also develop protocols on when and how data could be stored outside of Canada.

### III. Public transit

- Sidewalk indicates that it would not proceed with construction on Quayside, or beyond, absent key government actions, including primarily a **government commitment to advance an Eastern Waterfront Light Rail Transit (LRT)**, which could proceed in phases. [REDACTED]  
[REDACTED] (Volume 3, p.209)



- The expansion of Toronto's public transit network across the eastern waterfront has been planned for several years, with an estimated cost of up to \$1.2 billion, which at present are unfunded. (Volume 1, p. 268)
- Should governments be unable or unwilling to fund construction of a 6.5km Eastern Waterfront LRT, Sidewalk would **offer optional up-front financing** for the project (but not construct, own or operate it), using future revenue generation from the LRT to recoup this capital injection. (Volume 1, p. 268)
- Sidewalk asserts that this "self-financing" would allow the delivery of the LRT years earlier than currently projected in the TTC 2018 Corporate Plan (Volume 1, p. 434), demonstrating a new, financially sustainable way to finance infrastructure with reduced taxpayer dollars. It would also provide governments a **new tool to deliver critical infrastructure** in the city and region. (Volume 2, p. 41)
- The MIDP cites a 2019 third-party consultant's report which states that "a delay in light rail development until 2045 would result in over \$20 billion in forgone cumulative tax revenue across all three levels of government and cost more than \$1.8 billion in lost productivity." (Volume 1, p. 434)
- According to the MIDP, "at full buildout of the light rail extension, Sidewalk estimates that it could support roughly 72,900 daily trips and reduce car trips by 16.5 percentage points." (Volume 1, p. 437)
- As part of MIDP argument for proposals "at scale", Sidewalk asserts that a Quayside-only development would be insufficient to make this kind of investment viable, while the broader River District would provide the sufficient density to design and fund this transit extension. (Volume 1, p. 352)

#### IV. Economic Development

##### a. Urban Innovation Hub

- Sidewalk envisages the eastern waterfront as an "urban innovation hub" where Google's new Canada headquarters as a potential anchor tenant would have a "**clustering effect**", drawing in other smaller tech firms to the area. Google would also benefit from establishing a footprint in this ecosystem, which is already home to emerging hubs in the clean tech and urban innovation sectors.



- According to the MIDP, "Sidewalk Labs would foster an urban innovation ecosystem open to entrepreneurs and inventors from across Canada and around the world, and **work with the governments** to design a structure to support Canada's capacity to build and retain **intellectual property** locally." (Volume 0, p. 206)
- Sidewalk's proposed urban innovation campus would be located at Villiers West, alongside the Google offices, and would include an Urban Innovation Institute to which SWL would provide **\$10 million in seed funding**. Sidewalk would also establish a **\$10 million venture fund** to invest in local start-ups focused on urban innovation. (Volume 3, p. 31)
- Through the development of this urban innovation hub, Sidewalk estimates that a total of **93,000 jobs** (including 44,000 direct jobs) could be created, in addition to generating **\$4.3 billion in annual tax revenue and \$14.2 billion in annual GDP**, at full scale development of the River District by 2040. (Volume 3, p. 31)

*b. Catalyzing a Tall Timber Industry*

- The MIDP calls for the use of mass timber in all buildings developed in Quayside. To help jumpstart a new national industry, Sidewalk proposes to work with one or more partners to **build a mass timber factory in Ontario** that would harvest and process local sustainable timber. The MIDP suggests that this effort would catalyze an investment of up to **\$80-million** in the proposed factory. (Volume 3, p. 89).

## **V. Innovation and Funding Partner Proposal**

- In the MIDP, Sidewalk proposes to (optionally) finance roads, transit and other municipal infrastructure through existing **Canadian project financing strategies**, including development and other developer-paid charges for infrastructure; reinvesting the proceeds from the sale of public lands in the area; and, applying other value-capture approaches.
- Under the deal terms for the Innovation and Funding Partner proposal, Sidewalk would:
  - receive a discount on sale prices of Quayside and Villiers West; if profits from Quayside and Villiers exceed an agreed-upon threshold, Sidewalk would **pay Waterfront a share of the upside value**

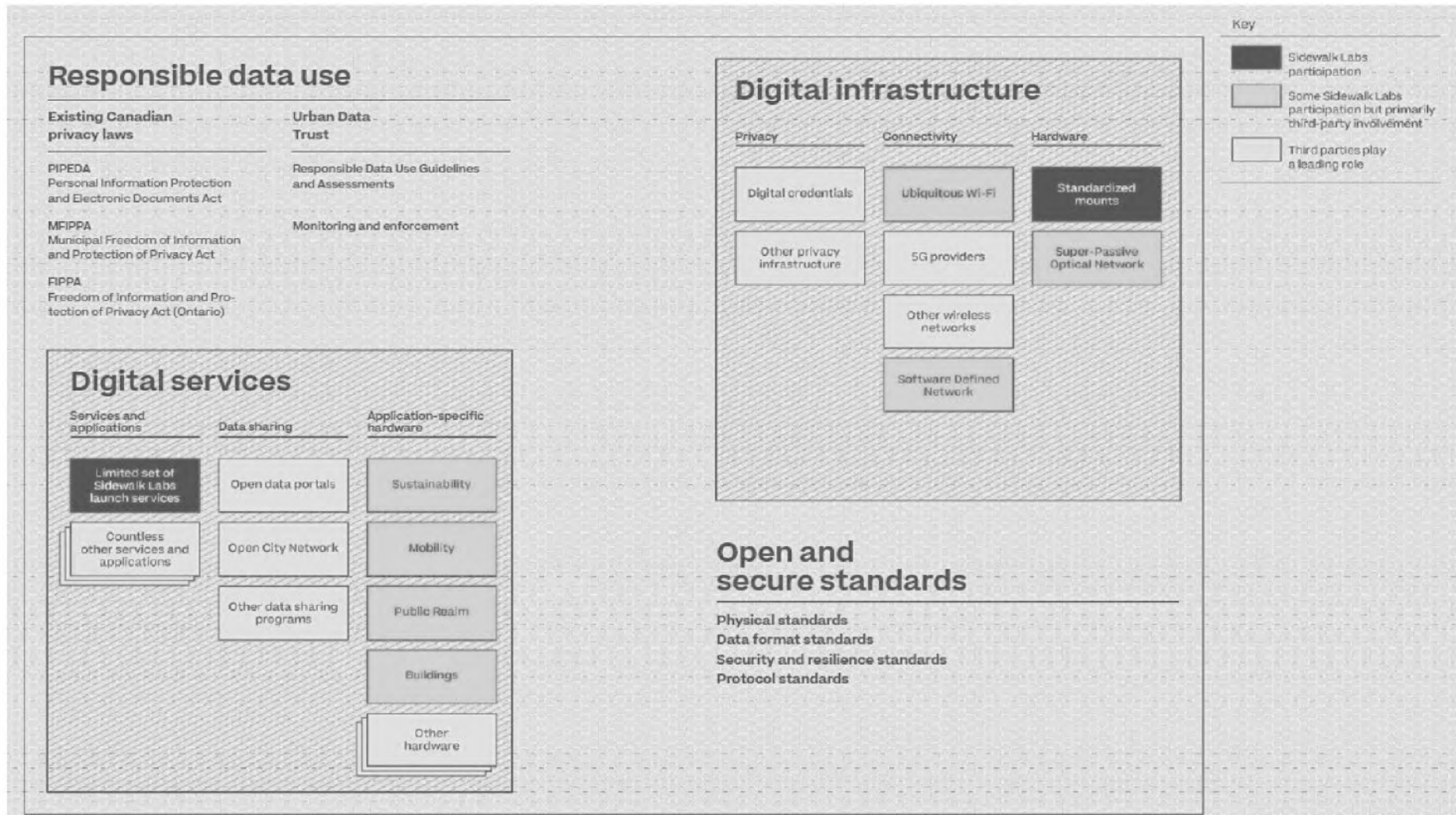


- make various forms of **financing and credit support** available for municipal and transit infrastructure; this would be optional and repayable at a fixed rate of return
- receive performance payments if specific performance and growth targets are met; these payments would arise only after Sidewalk has generated significant value for the public sector
- test and deploy certain technology products within the IDEA District; the **public sector would share profits** generated by certain technologies that are first tested and deployed in the IDEA District and then sold elsewhere
- be reimbursed for its advisory and implementation services,
- See **Annex B and C** for a summary of the Innovation and Funding Partner proposal.



## Annex A:

### Sidewalk's role in creating core conditions for digital innovation (Volume 2, p. 380)





## Annex B:

### Summary of Innovation and Funding Partner Proposal (Volume 3, p.34)

Commitments from SWL	Public Sector Commitments
<ul style="list-style-type: none"> <li>✓ Vertical development of Quayside to deliver a new model for using cutting-edge design and technologies for improving urban life</li> <li>✓ Vertical development of the Villiers W Urban Innovation Campus to further prove out the innovations initiated at Quayside, spur economic development and cultivate an innovation cluster</li> <li>✓ Horizontal development of the advanced systems for Quayside and Villiers W needed to deliver on WT's objectives</li> <li>✓ Deployment of SWL technologies (e.g., "purposeful solutions"), including sharing the profits associated with certain technologies with the public sector</li> <li>✓ Optional financing at a fixed interest rate for enabling infrastructure, including credit support for Waterfront East LRT extension; financing for municipal infrastructure; and, funding "supplemental innovation investments" to make the advanced systems financially viable in the early phases</li> <li>✓ Major economic development investments, including a new Canadian Google HQ on Villiers W, a tall timber factory, seed funding for an Urban Innovation Institute (\$10M), and a venture fund (\$10M) focuses on Canadian start-ups</li> <li>✓ Payment to WT of a share of upside value, above an agreed-upon threshold, from the Quayside and Villiers proceeds</li> <li>✓ 15-year agreement to provide ongoing technical, advisory, and management services for planning, design and implementation in the IDEA District, including for advanced systems and certain other horizontal infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>✓ Partnering with SWL to implement a comprehensive innovation and development strategy, with corresponding fees</li> <li>✓ Establishment of the IDEA District with a public administrator, including regulatory adjustments to enable critical infrastructure and innovative strategies</li> <li>✓ Disposition of the land for Quayside and Villiers W at price that accounts for additional WT requirements</li> <li>✓ Source a limited number of SWL products (at cost) to enable prototyping and deployment at scale, with corresponding IP sharing provisions for certain technologies</li> <li>✓ Payment of performance payments upon SWL achieving a series of negotiated growth and performance targets</li> </ul>



## Annex C:

### Responsibilities as Innovation and Funding Partner (Volume 3, p.43)

SWL Role	Scope
<b>Innovation Partner</b>	<ul style="list-style-type: none"> <li>✓ <b>Support and advise the public administrator on achieving innovation objectives</b> – providing advisory, technical, and management services to implement MIDP innovation strategy, including designing technical specifications and design standards; integrating advanced systems with municipal infrastructure; and, in later phases, advising on the development of advanced systems</li> <li>✓ <b>Deliver Quayside as a demonstration</b> – serving as lead developer, with local partners, on vertical development of Quayside and advanced associated horizontal infrastructure</li> <li>✓ <b>Deliver advanced systems in Quayside and Villiers West</b> – serving as lead developer of most advanced systems, assuming responsibility of identifying operators and partners to implement the advanced power grid, thermal grid and other systems identified as vital to success of Quayside and Villiers West urban innovation campus</li> <li>✓ <b>Deploy key technology products</b> – identifying or developing critical urban technology solutions, including a small number of “purposeful solutions”; resulting products would incorporate enhanced privacy protections and use published standards to avoid technology “lock in”</li> </ul>
<b>Funding Partner</b>	<ul style="list-style-type: none"> <li>✓ <b>Serve as economic development catalyst</b> – serving as lead developer for the urban innovation campus on Villiers West, which relies on a commitment from Alphabet to establish a Google headquarters as part of an agreed-up transaction with in the IDEA District</li> <li>✓ <b>Provide optional financing and credit support for critical infrastructure</b> – at the option of Waterfront Toronto and relevant government participants, provide various types of financial support to facilitate the construction of essential infrastructure, including credit support to accelerate the delivery of the Waterfront Eastern LRT and financing for municipal infrastructure throughout the project area;....faciliate financing for operators of advanced systems through a newly formed company (with outside partners) focused on next-gen infrastructure</li> <li>✓ <b>Fund supplemental innovation investments</b> – to support the advanced power grid and thermal grid, and possibly other advanced systems;...achieve outcomes without significant increases to user rates, until systems reach a scale and operational efficiency to be economically viable on a stand-alone basis</li> </ul>



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## CONFIDENTIAL DRAFT

**Release of the Quayside Master Innovation and Development Plan****Overview**

In October 2017 Waterfront Toronto (WT) selected Sidewalk Labs (SWL) to develop a comprehensive proposal and underlying business plan for a community on the Quayside site based on a series of urban innovation objectives. This proposal is called the **Master Innovation and Development Plan** (MIDP). On June 24, 2019, WT will release the draft MIDP to the public.

Waterfront Toronto will lead an extensive public and stakeholder consultation process on the MIDP beginning in July. This will be followed by Waterfront Toronto's formal evaluation of the MIDP this fall, which will include support from external experts. Broadly, the evaluation will "determine if the MIDP can be successful in meeting the priorities set out in Waterfront Toronto's 2017 Request for Proposals (RFP) as well as the goals and objectives established for the MIDP" ([www.quaysidetoronto.ca](http://www.quaysidetoronto.ca)).

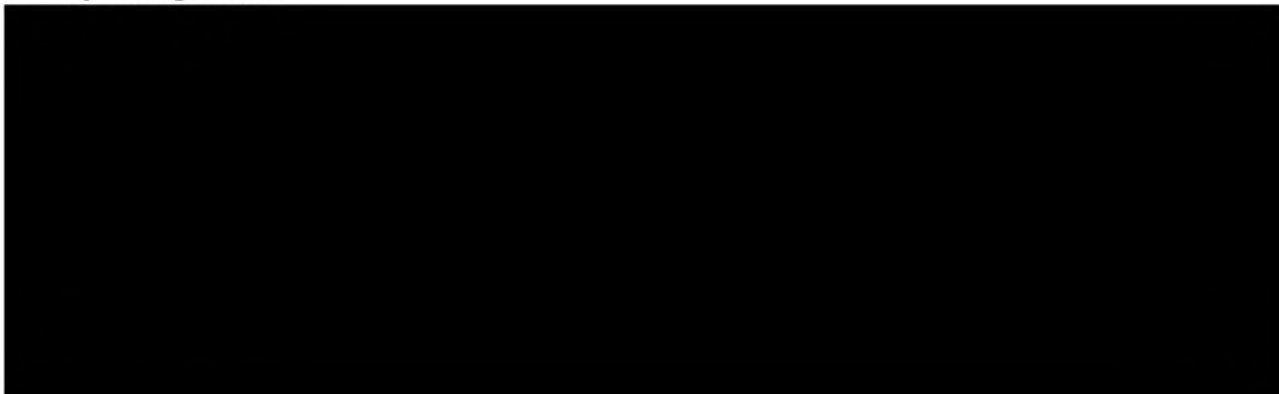
Once the evaluation process is complete, the WT Board will ultimately decide on a plan for the waterfront area, possibly in December 2019 or early 2020.

**Villiers West & Google's Canadian Headquarters**

The Quayside project RFP focused primarily on the 12-acre Quayside site, however WT also allowed for contemplation of ideas "at scale", to other parts of the waterfront area. As part of this broader potential scale, the MIDP includes the prospect of SWL negotiating the acquisition of a 20-acre piece of land adjacent to Quayside, known as Villiers West, where they are offering to build a new Google Canada headquarters.



CONFIDENTIAL DRAFT

**Speaking Points****Appendices**

- Annex A – Media Lines
- Annex B – Questions and Answers
- Annex C – Open letter from Waterfront Toronto Board Chair, Stephen Diamond





Speaking notes for:

Brian F. Kelcey, Vice-President, Public Affairs

Toronto Region Board of Trade

To the House of Commons Standing Committee on Access to Information, Privacy & Ethics

March 21, 2019

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To the Chair, and Members of Parliament:

Since I know many of you will be exhausted from overnight business, I want to start by offering thanks to Members, Clerks and other Parliamentary and political staff for your service. I know that this may not be the most glamorous committee on the Hill right now, but this is an important debate, with important implications for our economy, and we're grateful you're still awake to conduct it.

As the Toronto Region Board of Trade's Vice-President of Public Affairs, I'm here on behalf of the Board's 13,000 members. The Board of Trade is now actively engaged in the debate about Waterfront Toronto's Quayside project, and its agreement with Sidewalk Labs.

Our overall view is that we are happy Sidewalk Labs is in Toronto.

We believe investments by large foreign technology firms can play an important role in building our tech economy, while the scale-up of our outstanding domestic tech sector remains a priority.

We believe that the process agreed to by Waterfront Toronto and Sidewalk Labs should proceed, with any final outcome based on the merits or demerits of whatever Sidewalk Labs presents in its draft Development Plan, as intended.

We believe tearing up this process in mid-stream poses reputational risks, trade risks and legal risks. And there is no cause to take those risks, since there are literally dozens of steps worth of approvals ahead of Sidewalk Labs, leaving plenty of room to negotiate for the public interest as this develops.

That said, the Board was not vocal with those arguments for the first several months of this controversy because our policy team wanted to address an important issue first. There is a big, awkward gap in



regulation of public realm data capture. Sidewalk Labs has made it clear that public realm data capture services would be one of the innovations it hopes to deliver at Quayside.

So we believe this regulatory gap must be filled – for everyone's sake.

That's why we released a short report called *BiblioTech* in early January of this year.

Our key recommendations were simple.

We argued that any data regulation related to the Quayside project should be handled by a third-party organization, not the project participants or proponents.

We argued that generally, any public realm data collected in the City of Toronto should, by law and regulation, be held by a public data hub.

We argued that a good potential host for that hub would be the Toronto Public Library, chartered as it is by provincial legislation, and that the Library should be empowered to develop recommendations on regulations to govern that hub. Naturally, TPL would be expected to engage other governments, advisors and stakeholders to reach those recommendations.

Enforcement of those rules should fall with the Information and Privacy Commissioner of Ontario, with any appropriate rules, penalties and authority added to do so.

Finally, we argued that the Toronto Public Library should model any effort to capture IP value from this data on the approaches used at university and post-secondary tech transfer offices. Revenue should be used to make the hub self-sustaining, even if commercialization of data was limited.

I'm happy to discuss any of our recommendations and the reasoning behind them at greater length.

\*\*\*

Suppose Sidewalk Labs actually manages to race through the MIDP approval, negotiate intellectual property concessions with Waterfront Toronto, win desired building code changes, and run the uncertain gauntlet of development approvals at City Hall.

Even if they walk on water, the data regulation issue we called out in January is still waiting on the other side, unless we – and I mean “we” in the sense of the larger political community, of all of us present – act to resolve it. If we don't, we'll wish we had soon enough. The Board has seen other examples where domestic firms and public agencies are already colliding with the same issues on projects in situations that have nothing to do with Quayside.



And what's politically remarkable is that there's actually a consensus here.

Sidewalk Labs and its most vocal critics both agree -

- let me pause there and repeat -

Sidewalk Labs and its most vocal critics BOTH agree

that public realm data should be regulated by governments or agencies before Sidewalk collects any public realm data at Quayside.

And BOTH Sidewalk Labs and its critics agree that public realm data should be held independently by an external authority once collected, be that the government, a trust or some suitable agency.

They agreed on that in November. They agree on that today. We agree with both.

\*\*\*

To close, I'll note that data policy is a point of historic interest to me. As a former Queen's Park political advisor, in 2001-2002 I worked with a great team and a great minister to develop a made-in-Ontario privacy regime. Those rules were meant to protect the public, but also to provide a competitive, predictable environment to attract tech firms to Ontario. The draft legislation was ultimately abandoned internally months after I'd left the department, on the political argument that legacy businesses might complain about the inconvenience of protecting customer privacy.

This Parliament enacted the *Personal Information Protection and Electronic Documents Act* nearly twenty years ago, and that Act is what triggered Ontario's initiative. And here we are again, facing an incrementally different world with a more complex regulatory challenge.

We know that on the initiative of Councillors Joe Cressy and Paul Ainslie, Toronto City Council has launched an effort to develop its own data policy. Ontario is consulting on a data strategy as we speak. But ultimately, the authority that created a broad framework to address these issues in the earliest days of the Internet was right here, and a national approach may also be appropriate.

I hope, in any questions that we'll have the opportunity to speak to other issues in the Quayside debate. But I'm sure the primary reason we were invited to join you today, is that we've spoken out on the virtue of public realm data regulation. We've made it clear that our support for this regulation is a pro-business AND a pro-Quayside position, just as much as it is a pro-public interest position.



[REDACTED]

[REDACTED]

Thank you for your letter of March 1, 2019 to the Honourable Navdeep Bains, Minister of Innovation, Science and Economic Development, regarding the Waterfront Toronto Quayside project. It has been referred to me by Minister Bains' office for reply.

Waterfront Toronto's vision is to develop sustainable communities, increase the supply of affordable housing, expand public transit and increase economic competitiveness through various projects and initiatives. The federal government has collaborated with Ontario and Toronto to invest more than \$1 billion to advance this vision. As part of this commitment, in June 2017 our Government announced \$416 million in contribution funding towards the significant Port Lands Flood Protection initiative that will transform some 240 hectares of underused industrial land into a vibrant and resilient neighbourhood.

The Government of Canada is aware of the concerns being raised by citizens around privacy and data in a smart cities context, which you point to in your letter. To this end, we are closely monitoring the deliberations of an independent group of experts convened by Waterfront Toronto, under a Digital Strategy Advisory Panel, to provide the agency with advice on key issues related to the potential use of innovative and smart technology at Quayside, and any related implications for data collection, sharing and privacy.

At the federal level, the National Consultation on Digital and Data Transformation led by Innovation, Science and Economic Development Canada will help position our Government to better understand how Canada can drive innovation, prepare Canadians for the future of work, and ensure they have trust and confidence in how their data is used, including in the context of proposals for the Quayside site. Additionally, it is my understanding that the Government of Ontario recently launched consultations to seek public input on the development of a digital strategy for the province, and the City of Toronto is expected to embark on its own public consultation process for a digital infrastructure and smart city framework.

In closing, I appreciate hearing your views around Waterfront Toronto and the development plan for Quayside that Sidewalks Lab is currently drafting and is expected to submit to Waterfront [REDACTED] Our Government looks forward to reviewing the full Plan and considering the balance between innovation and promoting new community investments as well as privacy and responsible data use.

Sincerely,

Glenn Campbell  
Assistant Deputy Minister, Investment, Partnerships and Innovation  
Infrastructure Canada





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## **BRIEFING NOTE TO THE MINISTER OF INFRASTRUCTURE AND COMMUNITIES**


### **UPDATE ON QUAYSIDE PROJECT AT WATERFRONT TORONTO**

(For Information)

#### **PURPOSE**

- To provide an update on issues and timing with respect to completion and public release of a draft Quayside Master Innovation and Development Plan (MIDP).

#### **HIGHLIGHTS/KEY CONSIDERATIONS**

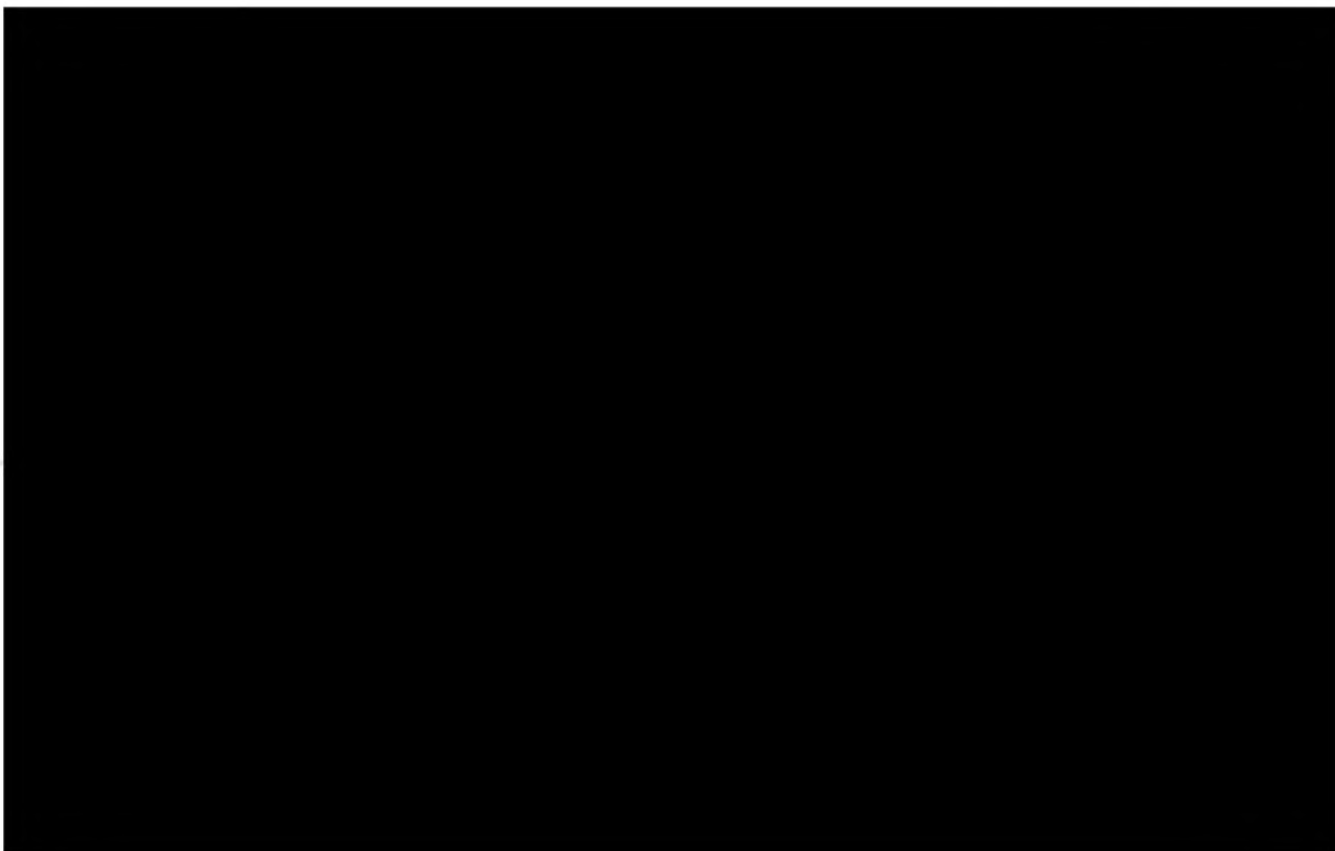
- Waterfront Toronto (Waterfront) continues to work with Sidewalk Labs (Sidewalk) as an innovation and development partner towards a proposed MIDP for the Quayside project.
- Since our last briefing to you on MIDP timelines (see Annex A), Waterfront and Sidewalk have continued to refine content of the various chapters of the MIDP and are working on an overall plan that both parties can agree on before putting out for public consultation and evaluation. They are now working towards a release to the public on or around June 24, 2019.
- Given that release of the MIDP has already shifted a few times, it is possible that publication of the MIDP could be pushed further into July, depending on the outcome of current discussions and negotiations, and how much redrafting is required, including amendments to the overall business case and financing plan.
- 
- The timing of any MIDP release will need to be approved by the Investment, Real Estate and Quayside Committee (IREQ), a sub-committee of Waterfront's Board. Considerations will include ensuring that the draft MIDP complies with and is within scope of the original RFP and the PDA, and meets public expectations in this regard. Approval in this sense only signals agreement to release a draft for consultation, not an endorsement of the proposals therein.

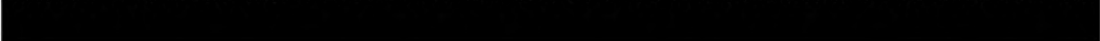

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- Waterfront is developing an evaluation framework through which it will review and assess the MIDP, as well as an engagement strategy for seeking broad public and stakeholder input. Once the consultation and evaluation period has concluded, Waterfront management will prepare a report, with recommendations, for its Board of Directors who will decide whether to pursue the MIDP or elements of the MIDP. The MIDP will also require the approval of Sidewalk's Board prior to both parties initiating implementation.
- As government officials have only been briefed at high level and have not yet seen the MIDP,   

- Department staff are developing an internal workplan to prepare INFC and other departments as needed for MIDP roll-out, including coordinated communications to help frame the government's initial position on the MIDP draft, monitoring of the public engagement process and potential federal interests; and, coordination and alignment, where possible, with other government partners such as the province or city.

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## **KEY BACKGROUND**


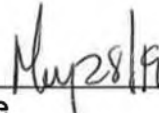
- In 2017 Waterfront ran an RFP process seeking an Innovation and Funding Partner to help create a plan for a neighbourhood of the future. This led to the eventual selection of Sidewalk to lead the creation of an MIDP for the Quayside site.
- Governments have encouraged Waterfront and Sidewalk to be highly attentive to public consultation, transparency and outreach during the planning phase and to establish appropriate bodies to provide guidance, such as the arms-length Digital Strategy Advisory Panel that is currently in place.
- The draft MIDP will likely comprise three volumes centered around:
  - Infrastructure and real-estate development plans at different scales;
  - Various innovative solutions for deployment in the project; and
  - Roles and responsibilities, business terms, and financial/commercial considerations, and roles and responsibilities.
- Waterfront anticipates their next steps for roll-out of the MIDP to be as follows:
  - **June ~24:** public release of the MIDP
  - **June 24 – July 21:** public and stakeholder consultation
  - **August 1 – 31:** Waterfront and expert panel initial review, and return to Sidewalk on critical issues based on consultation feedback
  - **September 2019:** Sidewalk submits final MIDP to Waterfront
  - **Fall 2019:** formal evaluation and development of management report and recommendations for IREQ and then Board consideration
  - **December 2019:** Board meeting to discuss/agree on MIDP endorsement
  - **Winter 2020:** commence development of Implementation Agreements based on approved elements of the MIDP
- For its part, the City of Toronto Waterfront Secretariat is expected to submit a report to the City's Executive Committee in early June that would outline details of their own public consultation process, which would likely unfold in fall 2019. The document is also expected to outline the City's workplan for review of the final MIDP, which would culminate in a second report to the Committee, likely in spring 2020.
- Should the decision be made to pursue some or all elements of the MIDP proposal, implementation will be subject to multiple City planning approvals, given the City's role as a regulator, landowner, and provider of municipal infrastructure and services, as well as federal and provincial regulations as appropriate.



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**NEXT STEPS/RECOMMENDATION**

- We will continue to keep you apprised of ongoing discussions and the planned release timing of the MIDP; and,
- We will schedule a briefing on the MIDP as a confirmed date approaches, and then share the proposal when received.

	
Kelly Gillis Deputy Minister Infrastructure and Communities	Date

WebCIMS #: 51491

4



**Bruyère2, Martin (INFC)**

---

**From:** Minister of ISED - Ministre de ISDE (IC)  
**Sent:** Friday, August 2, 2019 3:45 PM  
**To:** [REDACTED]  
**Cc:** Minister / Ministre (INFC)  
**Subject:** Innovation, Science and Economic Development Canada  
**Attachments:** FW: Toronto Waterfront - Sidewalk Labs MIDP



Innovation, Science and  
Economic Development Canada

Innovation, Sciences et  
Développement économique Canada

Dear [REDACTED]

On behalf of the Honourable Navdeep Bains, Minister of Innovation, Science and Economic Development, thank you for your email of July 27, 2019.

The issue you have raised falls under the purview of the Honourable François-Philippe Champagne, Minister of Infrastructure and Communities. I have therefore taken the liberty of forwarding your correspondence to his office for consideration.

Please accept my best wishes.

Sincerely,

Angela Mills  
A/Director, Executive Correspondence

c.c.: Office of the Honourable François-Philippe Champagne, P.C., M.P.

Canada



**Bruyère2, Martin (INFC)**

---

**From:** Bains, Navdeep - M.P. <Navdeep.Bains@parl.gc.ca>  
**Sent:** Monday, July 29, 2019 2:04 PM  
**To:** Minister of ISED - Ministre de ISDE (IC)  
**Subject:** FW: Toronto Waterfront - Sidewalk Labs MIDP

**Follow Up Flag:** Follow up  
**Flag Status:** Completed

Please see below email

Kind Regards,

Navpreet  
Parliamentary Office of Minister Navdeep Bains, P.C. , M.P.  
Member of Parliament for Mississauga – Malton

---

**From:** [REDACTED]  
**Sent:** July 27, 2019 1:02 PM  
**To:** Bains, Navdeep - M.P. <Navdeep.Bains@parl.gc.ca>; bill.morneau@canada.ca  
**Cc:** Bennett, Carolyn - Assistant 2 <carolyn.bennett.a2@parl.gc.ca>; [REDACTED]  
[REDACTED]  
**Subject:** Toronto Waterfront - Sidewalk Labs MIDP

Dear Ministers Bains and Morneau,

[REDACTED]



**Pages 146-147  
are withheld  
pursuant to paragraphs  
19(1) & 21(1)(b)  
of the *Access to Information Act***

**\*\*\*\***

**Les pages 146-147  
Font l'objet d'une exception totale  
conformément aux dispositions des  
paragraphes  
19(1) & 21(1)(b)  
de la *loi sur l'accès à l'information***



# A Primer on Civic Digital Trusts

## Welcome!

Smart cities offer many potential benefits for residents - but only when data generated within cities can be shared and used to inform decision making. The purpose of this Primer is to explain as simply as possible how a civic digital trust could democratically and responsibly share smart city data and algorithms.



## A Work in Progress...

Civic digital trusts are a relatively new idea, and our understanding of how they work is evolving rapidly.

That means this Primer needs to evolve too. The first draft of the Primer was published online in December, 2018, following a workshop that convened a diverse group of stakeholders in Toronto in November, 2018.

We are publishing the Primer as a Gitbook because of its integration with Github, the platform that powers the Open Source movement. As an Open Source ebook, anyone can add to it, or use it to build other Open Source resources. This work is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License.

To suggest changes to the Primer, click the [Edit on GitHub] button on the top right of the screen and propose changes and additions to the handbook for our stewards to approve. For those of you who haven't used GitHub before, here's a handy guide Enspirale created for people to contribute to their GitBook. If you've got something to add to the Primer but this process doesn't work for you, email your suggestions to [solutions-lab@marsdd.com](mailto:solutions-lab@marsdd.com).

This Gitbook is not a Wiki. However, the five pillars and 10 simple rules of Wikipedia provide a useful guide for the editorial standards we are aiming for to provide a reliable, neutral and accessible reference.



# About This Primer

This Primer is meant to provide an easy to read and reliable introduction to civic digital trusts. We hope this will help people inform themselves about a topic that is important to the future of cities, but not widely understood. When everyone has easy access to the facts, more people can participate more meaningfully in a better quality conversation.

This is not just a conversation about legal structures and data architectures. It is actually a conversation about how we want to live our lives together in the digital age. It is a conversation people in every city will soon need to have about the kind of society they want to become. This conversation is too important to be only happening between urban planners and technologists. It requires the participation of all city residents.

This is a conversation that Toronto, Canada is just starting to have. The process of developing a Master Innovation and Development Plan for the Quayside smart city demonstration neighbourhood on the Toronto waterfront has started people talking about rights, freedoms, and responsibilities in the digital age. It has also prompted people to search for practical solutions to responsibly share data to unlock the potential of smart cities.

The process is convened by the MaRS Solutions Lab working in partnership with Waterfront Toronto. Partial funding has also been provided by Sidewalk Labs. MaRS interviewed 11 national and international subject matter experts. There were 37 workshop participants, including representatives from municipal, provincial and federal government; universities and civic sector organizations; and startups, consultancies and national corporations. The co-authors and participants in this process include:

<b>Name</b>	<b>Affiliation</b>
Aaron Barter	Waterfront Toronto
Andrew Young	The Governance Lab
Alex Ryan	MaRS Discovery District
Beth Coleman	Faculty of Arts, University of Waterloo
Charles Finley	Code for Canada



Chris Makris MaRS Discovery District  
Joe Greenwood MaRS Discovery District  
Kevin Stolarick Inclusive Design Research Centre, OCAD University  
Kristina Verner Waterfront Toronto  
Lisa Austin Faculty of Law, University of Toronto  
Michel Girard Centre for International Governance Innovation  
Mikayla Zolis MaRS Discovery District  
Sasha Sud MaRS Discovery District  
Sergio De Lara MaRS Discovery District  
Sharon Bauer KPMG  
Timothy Banks nNovationLLP  
Vanessa Matos MaRS Discovery District



## **Disclaimer**

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# In a Nutshell

Cities are becoming smarter and more responsive to the needs of residents and visitors. There is a potential for everyone to benefit from better services and improved quality of life. Achieving these benefits is only possible if data is collected and shared to inform urban planning and service delivery.

Data should be collected and shared in cities only when:

- There is a clear and substantial benefit for residents
- There is sufficient digital governance in place to advance the rights, freedoms and interests of residents and visitors and protect them from risk

A civic digital trust provides one promising approach to responsibly share smart city data. A civic digital trust could:

- Establish a group of trustees with a fiduciary responsibility to steward a city's digital assets and data in the best interests of residents and visitors
- Empower residents and strengthen democratic decision making processes related to digital governance
- Actively protect against data breaches and misuses; assure individual and group privacy; advance equitable distribution of value; and promote regional economic competitiveness

A civic digital trust would go beyond existing privacy legislation with a pro-active approach to representing the interests of residents. It would also provide citizens with an additional layer of legal recourse against data abuses.

There are multiple ways a civic digital trust could be implemented in practice. It could be housed within a government agency; established as a not for profit organization; or run as a social enterprise. The technical architecture could be a centralized hub; a decentralized ecosystem of databases connected by common standards; or a hybrid model somewhere in between. Each option is fit for different purposes, depending on the sensitivity, complexity, and uncertainty of the data and its uses.

This Primer explores five use cases of specific benefits from responsibly sharing



data. They are: sharing energy usage data; building usage data; mobility data; health data; and combining smart city data with mobile and consumer data. Each of these use cases demonstrates possible combinations of legal, business model, and technical architectures in a plausible scenario. The purpose of the use cases is to provoke a conversation about what data people are comfortable with sharing, and with what conditions.

The Primer is designed to be read actively. There are small surveys embedded throughout the Primer so you can have your say about what matters most to you. If you can do a better job of writing a section, you should edit the Gitbook and submit an upgrade. We want this to be a resource that becomes more relevant over time.

We think that three next steps are required:

1. A much broader public engagement needs to happen about smart city data sharing
2. People need to build pop-up prototypes so that it is possible for residents to experience the benefits of a civic digital trust in action
3. We should actively explore other models of data sharing so that we can understand which model works best in different situations

We hope that as you read this Primer, you will actively contribute to it, and consider joining us in taking these next steps together!



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# What is a Smart City?

The Greater Toronto Area is Canada's most populous metropolitan area, and this year alone it has grown by more than 200,000 people. Canada has one of the world's highest rates of urbanization at 82% of the population. Cities the world over are growing at an astonishing rate. Every week, 1.5 million people join the urban population. People are drawn to the economic opportunity, cultural vibrancy, and quality of life that big cities like Toronto offer.

As cities grow, they are faced with some very big challenges. Traffic congestion. Housing affordability. Increasing demand for schools, hospitals, and government services. Managing these challenges requires good planning, effective decision making, efficient services, and strong democratic participation from citizens and residents.

Cities like Singapore, San Francisco and Helsinki are using digital technologies to solve these and other problems, in order to make life better for residents. In Glasgow, streetlights with smart sensors dim when the streets are empty, saving energy and taxpayer dollars. In Barcelona, the government opened up its data sets for use by citizens and businesses, installed free Wi-Fi in streetlights, and has sensors constantly monitoring waste bins, parking spaces, and air quality. When city planners and service providers have access to more accurate and timely data, it creates possibilities to use the city's resources more equitably and efficiently.

In Canada, the federal government is running a \$300 million Smart Cities Challenge. The Smart Cities Challenge is a pan-Canadian competition open to communities of all sizes, including municipalities, regional governments and Indigenous communities (First Nations, Métis and Inuit). The Challenge encourages communities to adopt a smart cities approach to improve the lives of their residents through innovation, data and connected technology. The government received 130 applications from communities across Canada and selected 20 finalists who have received \$250,000 each to further develop their proposal by Winter 2019.



## What is a Smart Cities Approach?

A smart cities approach aims to achieve meaningful outcomes for residents by leveraging the fundamental benefits that data and connected technology have to offer:

**Openness** When communities make their data truly accessible, usable, and barrier-free, their decisionmaking processes become transparent, empowering citizens and strengthening the relationship between residents and public organizations.

**Integration** Data and connected technology empower communities to break down silos that exist within local governments and public organizations.

**Transferability** When tools and technological approaches are open-source, transparent, and standardized, they can be used by communities across the country, no matter their size or capacity.

**Collaboration** Connected technology enables communities to bring traditional and non-traditional partners together to collaborate.

[https://impact.canada.ca/sites/default/files/2017-11/SCC\\_Applicant\\_Guide.pdf](https://impact.canada.ca/sites/default/files/2017-11/SCC_Applicant_Guide.pdf)

An important feature of Canada's smart city challenge is that technology is not an end in itself, but a means of improving outcomes for residents, as determined by residents. All of the successful finalists in the Smart Cities Challenge engaged meaningfully with citizens and residents to determine their highest priority opportunity for technology and data to improve quality of life.



# The Quayside Development in Toronto

Waterfront Toronto is currently undertaking the largest urban revitalization project in North America. They are bringing together the most innovative approaches to sustainable development, urban design, real estate development, and leading technology infrastructure in order to deliver on important public goals, including reducing urban sprawl, developing sustainable communities, increasing the supply of affordable housing, expanding public transit and increasing economic competitiveness.

Waterfront Toronto has established the objectives and engaged Sidewalk Labs to design a proposal for a new kind of complete community on Quayside that will serve as a model for sustainable and resilient neighbourhoods throughout Toronto and cities around the world. The Quayside project, also referred to as Sidewalk Toronto, has an ambition to address the toughest challenges facing cities—and meaningfully improve quality of life—through the combination of forward-thinking urban design and innovative technology.

As part of this process, Sidewalk Labs recently released a proposed [Site Plan](#) that includes people-first streets and public realm; 40% below-market affordable housing; creates 9,000 construction jobs and houses 3,900 jobs located at Quayside; 75%-85% reduction in GHG emissions; and provides safer and less congested streets. The site plan proposes a [civic data trust](#) with independent governance over the collection and use of urban data. The full Master Innovation and Development Plan is expected to be released for public feedback in mid-2019.

The Quayside planning process has attracted a lot of interest from the public and the media, both in Toronto and internationally. One of the top concerns for citizens, the civic tech community, and privacy experts is how personal data and public data will be collected, shared, controlled, and used in Quayside. These concerns are not unique to Quayside. We expect every city in Canada will need to address these questions within the next five years. Because Quayside presents a specific plan for a particular place, it provides the opportunity to have a more detailed, grounded, and concrete discussion about responsible data sharing. The



use cases we develop in this primer are applications that are plausible for Quayside, but were selected to have relevance to cities beyond Quayside.



# The Need to Govern the Digital Layer

*Governance of the digital layer addresses who decides what data is collected and shared for what uses. Governance is needed for ensuring security, privacy, equity and competitiveness.*

What makes a smart city smart is the ability to collect data, process and analyze the data, and act on the insights. In Helsinki, open data was used to develop BlindSquare, a mobile GPS app that helps blind and visually impaired people navigate the city. This kind of smart city application requires the collection and sharing of multiple sources of data across public and private organizations.

In order to collect and share data, a smart city adds a "digital layer" to engage existing city infrastructure. This is similar to how an operating system adds a digital layer of software on top of the physical hardware of a computer. The difference is for a city, the digital layer is not a single thing, but a network of many connected things. The digital layer includes:

- Physical sensors to collect data;
- Digital services that use data to control other infrastructure, e.g. traffic lights;
- Databases that store the data on servers;
- Algorithms and code to protect, manage, process, analyze and transform the data;
- Maps, visualizations and models that organize and project the data into more useful forms;
- Standards and source code for how to interact with digital services;
- Application Programming Interfaces (API) that share specific data subsets for use in third party applications both offline and in realtime; and
- All of the public and private services that use the data.

There are four reasons governance of the digital layer is needed: protecting against data breaches and misuses; assuring individual and group privacy; advancing equitable distribution of value; and promoting economic competitiveness.



## The Need for Security

Whenever information is collected and shared, there is the potential for data breaches. In 2018 alone, 1.1 billion Indian residents' personal information were compromised by an Aadhar data breach; 500 million Marriott Starwood guests worldwide had their hotel reservation data stolen; and Under Armour, Quora, Facebook, Google, Cathay Pacific Airways, Saks and Lord & Taylor, and T-Mobile all suffered personal data breaches affecting millions of users. For smart city data to be shared responsibly, there needs to be an organization that protects the data from cyber attack.

There are also potential misuses of data shared for an intended beneficial purpose. For example, in 2013, the FBI asked the public to help gather evidence in the wake of the Boston bombing. Anonymous commentators on 4chan and Reddit quickly profiled high school student Salah Barhoum and dozens of others based purely on their clothes and appearance. Salah found himself being followed by strange men who were convinced he was responsible for the terrorist attack. Although reported instances of misuse of shared data are rare, mitigating the potential for misuse is an important reason governance of the digital layer is needed.



## The Need for Privacy

*Digital governance is also needed is to protect privacy and to create a medium through which different privacy rights and obligations can be reconciled.*

Privacy is recognized as a fundamental human right in the UN Declaration of Human Rights. Although privacy is not expressly mentioned in the Canadian Charter of Rights and Freedoms, privacy has been expressly recognized as an interest that is protected by section 8 of the Charter, which protects against unreasonable search and seizure. Privacy is also considered by some to underpin human dignity and the fundamental freedoms guaranteed by the Canadian Charter of Rights and Freedoms. Under this conception of privacy, privacy is not only an individual right, but also a societal good.

Part I Section 2 of the *Canadian Charter of Rights and Freedoms* guarantees four fundamental freedoms for everyone in Canada:

- (a) freedom of conscience and religion;
- (b) freedom of thought, belief, opinion and expression, including freedom of the press and other media of communication;
- (c) freedom of peaceful assembly; and
- (d) freedom of association

<https://laws-lois.justice.gc.ca/eng/const/page-15.html>

The rights granted in the Charter are not absolute. They are subject to reasonable limits prescribed by law that can be justified in a free and democratic society (Section 1).

When discussing privacy, it is important to distinguish between different types of privacy interests. The Supreme Court of Canada has recognized three types of privacy interests - informational (information about a person), personal (bodily), territorial (own's home or private space).

The types of privacy interests involved in civic digital trusts are primarily informational. Canada has federal and provincial laws that operate within the limits of the Charter to protect individual informational privacy interests while recognizing the needs for governments, public sector organizations and private



sector organizations to collect, use and disclose personal information. For example, the federal Privacy Act protects the privacy of individuals with respect to personal information about themselves held by a government institution and provides individuals with a right of access to that information. In Ontario, the Freedom of Information and Protection of Privacy Act (FIPPA) fulfills a similar purpose for provincial government institutions and the Municipal Freedom of Information and Protection of Privacy Act (MFIPPA) governs municipal corporations, such as the City of Toronto. There is also a Personal Health Information Protection Act in Ontario that applies primarily to hospitals and regulated health professionals when they collect, use and disclose personal health information for the purpose of providing healthcare to an individual.

Ontario (unlike Alberta, British Columbia and Quebec) does not have a private sector privacy law. Ontario also does not expressly recognize privacy as a fundamental human right (unlike Quebec). Instead, the federal Personal Information Protection and Electronic Documents Act contains the rules that govern organizations that collect, use or disclose personal information in the course of a commercial activity.

Under these laws, "personal information" is usually defined as information "about an identifiable individual". It is data that on its own or combined with other pieces of data, can identify *you* as an individual... it can mean information about your:

- race, national or ethnic origin,
- religion,
- age, marital status,
- medical, education or employment history,
- financial information,
- DNA,
- identifying numbers such as your social insurance number, or driver's license,
- views or opinions about you as an employee.

[https://www.priv.gc.ca/en/privacy-topics/privacy-laws-in-canada/02\\_05\\_d\\_15/](https://www.priv.gc.ca/en/privacy-topics/privacy-laws-in-canada/02_05_d_15/)

The rules governing when personal information can be collected and how it can be used are not the same in the public sector and the private sector. In the public



sector, public bodies can collect personal information *without consent* as long as it is authorized by a law that complies with the Charter and notice is provided to the individual. By contrast, in the private sector, express or implied consent of the individual is a requirement, with limited exceptions.

In a smart city, where sensors are embedded in roads, streetlights and public spaces, it becomes difficult, if not impossible, for private sector organizations to obtain meaningful consent from individuals. It can also be challenging for municipal governments and other public sector institutions to give meaningful notice to individuals.

There are also differences between how information that has been collected can be used. For private sector organizations, consent must be provided for specified uses. However, public sector organizations may be able to use information for uses that are consistent with the original purpose for collection. In the healthcare context, health information custodians generally, but do not always require consent to the collection, use and disclosure of personal information.

In a smart city, data often has greater value for the many additional uses that may not have been foreseen at the time of collection. One way data is different than physical resources is it becomes more useful the more it is used. Given the public-private partnerships that may be involved in a smart city, the differences in the privacy legislation applying to the different parties complicates the ability to collaborate on new uses.

Privacy by Design is a framework for safeguarding privacy developed by former Ontario Information and Privacy Commissioner Ann Cavoukian. It is now a global standard that has been adopted by the International Assembly of Privacy Commissioners and Data Protection Authorities.

## **The 7 Foundational Principles of Privacy by Design**

**1. Proactive not Reactive; Preventative not Remedial** The Privacy by Design (PbD) approach is characterized by proactive rather than reactive measures. It anticipates and prevents privacy invasive events before they happen. PbD does not wait for privacy risks to materialize, nor does it offer remedies for resolving privacy infractions once they have occurred—it aims to prevent them from



occurring. In short, Privacy by Design comes before-the-fact, not after.

**2. Privacy as the Default Setting** We can all be certain of one thing -- the default rules! Privacy by Design seeks to deliver the maximum degree of privacy by ensuring that personal data are automatically protected in any given IT system or business practice. If an individual does nothing, their privacy still remains intact. No action is required on the part of the individual to protect their privacy -- it is built into the system, by default.

**3. Privacy Embedded into Design** Privacy by Design is embedded into the design and architecture of IT systems and business practices. It is not bolted on as an add-on, after the fact. The result is that privacy becomes an essential component of the core functionality being delivered. Privacy is integral to the system, without diminishing functionality.

**4. Full Functionality -- Positive-Sum, not Zero-Sum** Privacy by Design seeks to accommodate all legitimate interests and objectives in a positive-sum -- win-win -- manner, not through a dated, zero-sum approach, where unnecessary trade-offs are made. Privacy by Design avoids the pretense of false dichotomies, such as privacy vs. security, demonstrating that it is possible to have both.

**5. End-to-End Security -- Full Lifecycle Protection** Privacy by Design, having been embedded into the system prior to the first element of information being collected, extends securely throughout the entire lifecycle of the data involved -- strong security measures are essential to privacy, from start to finish. This ensures that all data are securely retained, and then securely destroyed at the end of the process, in a timely fashion. Thus, Privacy by Design ensures cradle to grave, secure lifecycle management of information, end-to-end.

**6. Visibility and Transparency -- Keep it Open** Privacy by Design seeks to assure all stakeholders that whatever the business practice or technology involved, it is in fact, operating according to the stated promises and objectives, subject to independent verification. Its component parts and operations remain visible and transparent, to users and providers alike. Remember, trust but verify.

**7. Respect for User Privacy -- Keep it User-Centric** Above all, Privacy by Design requires architects and operators to keep the interests of the individual uppermost by offering such measures as strong privacy defaults, appropriate



notice, and empowering user-friendly options. Keep it user-centric.

<https://www.ipc.on.ca/wp-content/uploads/Resources/7foundationalprinciples.pdf>

To create a smart city of privacy rather than a smart city of surveillance, Ann Cavoukian believes the most important rule to enforce is de-identification of data at source. De-identification is the general term for the process of removing personal information from a record or data set. De-identification protects the privacy of individuals because once de-identified, a data set is considered to no longer contain personal information. If a data set does not contain personal information, its use or disclosure cannot violate the privacy of individuals. De-identification at source means de-identifying at the point of collection, before the data is stored in a database or shared. De-identified data creates a win-win, because it unlocks the value of data sharing for public benefit without violating individual privacy.

However, de-identified data can be subject to de-anonymization attacks. In 2006, Netflix launched an annual open innovation competition to improve the prediction of user ratings of films. Although the data sets they provided for the competition were de-identified, two researchers from the University of Texas at Austin were able to re-identify individual users by matching the data sets with film ratings on the Internet Movie Database. Privacy concerns contributed to Netflix terminating the competition in 2010. A recent MIT study demonstrated that by combining two anonymized datasets of people in Singapore, one of mobile phone logs and the other of transit trips, 17% of users could be matched up with 95% accuracy.

In an interview with Ann Cavoukian, she recommended strong de-identification protocols in combination with a risk of re-identification framework. The risk framework would assess the risk and only give the green light for collecting data if the risk of re-identification was very low; perhaps only 1 chance out of 200.

A second risk associated with de-identified data is it is still possible to analyze, influence and discriminate against groups of people using de-identified data. There is currently no legal protection for groups until it can be demonstrated that an individual is impacted. While there is an emerging literature exploring the challenging topic of group privacy, currently there is no consensus on how to safeguard group rights.



## The Need for Equity

A third reason to govern the digital layer is that large pools of data and the algorithms that process the data are a source of power. The vast amount of data that is owned or controlled by the technology giants Facebook, Apple, Amazon, Netflix and Google is a significant factor in their market valuations. If data is going to be aggregated from the daily movements of citizens to create and capture new value we need to ask: are the benefits distributed fairly? How do the citizens, governments, and corporations that have built and populated the digital layer together share this new source of wealth?

One approach to these questions is to make all of the data open and free. Another approach is to assign all of the IP to a governing body like the trust. A third option is to create an IP sharing agreement.

Intellectual Property (IP) law exists to determine how to share value. When parties agree to pool data so that it can be used by others, according to [Anthony de Fazekas](#) there are five forms of IP that need to be addressed. In non-technical terms these are:

Background IP: the Intellectual Property of a party that is owned or controlled by that party before the agreement, or created by a party outside the scope of the agreement

Foreground IP: the Intellectual Property generated within an agreement

Latent IP: Applications of Intellectual Property other than the specific purpose for which the Intellectual Property was created

Arising IP: Intellectual Property that arises from a collaboration that was not expected at the time of the agreement

Shared IP: Intellectual Property that is jointly owned or pooled between two or more parties

An IP and data collaboration framework could specify who owns the data, who can access it, how the value of IP is assessed, and how royalties are distributed to the owners of the IP. In Canada, the [five superclusters](#) are creating "[frictionless](#)" IP sharing agreements that could be a useful model for a data trust.



## **The Need for Competitive Markets**

Data gathered in cities can drive innovation and be a source of new economic opportunity. Because sharing data could unlock solutions to major problems, the companies who help to solve these problems will generate revenue and jobs. These solutions could make life better here in Canada and then be exported globally. Conversely, if Canada lags other jurisdictions in finding ways to responsibly share smart city data, the hubs of this new industry will emerge in other regions, and Canada will become a consumer of solutions, rather than a producer.

Data is also a source of competitive advantage for individual firms. If one company holds proprietary access to large data sets that other companies can't access, this could effectively create monopolies with prohibitive barriers to market entry. If as a society we decide to instrument our cities to collect data and solve problems, we need governance to avoid anti-competitive practices. Sharing smart city data so that many companies have access is better than having the data under the control of a single company. However, governance of shared data should also consider the private data companies have proprietary access to that may in combination with the shared data create an even bigger asymmetrical advantage. If this is not considered, the trust could end up over-regulating a startup and under-regulating a tech giant.



## Summary

In order to protect against data breaches and misuses; assure group privacy; advance equitable distribution of value; and promote economic competitiveness, a governing body is needed to steward the digital layer in the public interest. The governing body would make decisions about what data can be collected; what rules must be followed to protect privacy and security through the full data lifecycle; and what uses of data are permitted. The governing body would need to include channels for public participation and stakeholder consultation to ensure that everyone affected by their decisions has an opportunity to have their voice heard. There would also need to be an accountability framework to hold the governing body accountable to the decisions they make in the public interest.



# From the Citizen's Point of View

*As a smart citizen considering if you want your city to be smart and your data to be shared, there are two sides of the coin: benefits/opportunities and costs/risks.*

## **What's in it For Me? Benefits and Opportunities**

As much as you love your city, there are likely things that frustrate you too. Overcrowded and inconvenient public transit. Increasing road congestion and expensive parking. Rising rents and mortgages. Disruptive construction and noisy streets. Wasted food, energy and resources. Areas of the city you don't feel safe. Changes to your neighbourhood you feel powerless to influence.

Imagine a city with more affordable places to live; safer and more vibrant places to enjoy; safer and more seamless trips from A to B; more efficient use of resources; and more ways to participate and have your voice heard. Smart cities that make use of responsible data sharing can improve your everyday quality of life.

## **What's the Catch? Costs and Risks**

You're likely aware that all the free apps on your smart phone are not really free. When you download the app, there are terms and conditions you consent to that lets the company track personal information, such as your location and use of the app. What's happening to your personal data? Who has access to it for what uses? Who is making money from your data? How is your data secured against cyber threats? Can you request access to your data? Can you ask the company to delete it?

A smart city raises many of the same questions about the privacy and security of your data. One difference between a smart city and a smart phone is that a phone has an off switch. It's a lot harder to block the city from collecting your data as you go about your daily life.

As so many of the objects in our cities become embedded with sensors, computer chips and internet connections, it becomes impossible to consent to or even know about all of the data that is collected about you and how it is used.



The modern city is placing an impossible burden on you to make decisions about all of your data.

### **What's the Answer? What a Civic Digital Trust Does For You**

A civic digital trust provides a legal structure so that a group of people can look out for your interests living in a city in the digital age. They make decisions on your behalf about what data can and can't be collected and shared for what purposes. They make sure the data is kept safe and secure. They check the computer code that runs on the data to make sure it doesn't discriminate against or cause harm to anyone.

You will have a representative on the civic digital trust you can contact to share your hopes and concerns.

If the civic digital trust ever causes you harm by neglecting their duties, you can seek remedies in a court of law.

If you think the world needs innovative solutions to improve people's lives, and you also care about your privacy and security, we would encourage you to read this Primer to learn more about civic digital trusts.



# What is a Trust?

Irwin Law's Canadian Online Legal Dictionary defines a trust as: "An arrangement under which money or other property is held by one person, often a trust company, for the benefit of another person or persons. These assets are administered according to the terms of the trust agreement."

Trusts are set to provide stewardship over an asset. **Assets** held in trust are most often land or money, but can be established for anything of value, including intellectual property and data. There are three parties involved in a trust agreement. Each party can be a person, a group of people, an organization, or a community.

1. The **trustor** contributes property to the trust.
2. The **trustee** manages the trust.
3. The **beneficiary** receives the benefits of the trust agreement.

The most relevant type of trusts for our purposes are trusts set up to benefit a whole community.

There are over 125 land trusts in Canada set up to conserve private lands and waters of environmental and cultural significance. The National Conservancy of Canada is a not for profit organization (the trustee) that receive donations of land from individuals, corporations and governments (the trustors) to conserve and restore land for the long term benefit of Canadians (the beneficiaries).

Many First Nations, Metis and Inuit have established community trusts to oversee and manage Settlement Agreement or Land Claim Agreement funds. The Nunavut Trust has \$1.8 billion of assets that are managed by six trustees. The trust has a mandate to invest the capital transfers from the Government of Canada (the trustor) to protect them from the effects of inflation and to provide income to the Inuit of the Nunavut Settlement Area (the beneficiaries).

Charities in Canada can be established as corporations, unincorporated associations, or as charitable trusts. The Muriel McQueen Fergusson Foundation is an example of a charitable trust. The goals of the foundation are to fund research and public education into the causes, incidence and



forms of treatment of family violence. The foundation accepts public and private donations (the trustors) and is managed by a volunteer board and an Executive Director (the trustees) that provides grants to registered charities in New Brunswick in the area of family violence.

These examples demonstrate several different ways trusts can be set up to manage donated assets to achieve a specified set of benefits for a particular community.

Trustees and beneficiaries enter into a special relationship called a fiduciary duty. **Fiduciary duty** means the trustees are legally obligated to act in the best interests of the beneficiaries, rather than serving their own interests. For example, attorneys have a fiduciary duty to their clients, and board members of a corporation have a fiduciary duty to shareholders.

The most important duties for trustees are loyalty and prudence. **Loyalty** means acting in good faith for the beneficiaries, avoiding conflicts of interest, and not acting for the benefit of themselves or a third party. **Prudence** means acting with due care, skill and diligence.

Trusts provide beneficiaries with legal protection when they place their confidence in the trustee. If a trustee acts against the interest of the trust's beneficiaries or fails to declare a conflict of interest, a **breach** of fiduciary duty has occurred. If a breach has occurred and the beneficiaries have suffered damages, the beneficiaries are entitled to take action in civil court.



# What is a Civic Digital Trust?

*A civic digital trust is a trust that is established to manage the digital layer of a smart city.*

A civic digital trust is a trust that is established to manage the digital layer of a smart city. The **assets** the trustees are responsible for managing may include the physical infrastructure (sensors and data warehouses), code base (database, standards, processing structures and interface) and data that make up the digital layer. The civic digital trust may also manage financial assets to ensure the sustainable operation of the trust.

{% hint style="info" %} Why have we chosen to call this model a civic digital trust?

A more common name is a data trust. Following [Andrew Clement](#), we have chosen to call it a *digital* trust to remind people that the digital layer includes many assets beyond data. Sharing only data significantly restricts the influence and therefore the potential effectiveness of a trust. Furthermore, focusing solely on data is insufficient, since data is not "owned" in the same way as other types of assets. What is being governed is the data flows and uses. Following [Sean McDonald](#), we have chosen to call it a *civic* trust to emphasize the requirement to build civic participation into the governance of the trust. Civic means relating to a city or a town. The [civic tech](#) movement improves the relationship between government and the people through information technology, and is an important inspiration for this work. We think a civic digital trust should be inclusive, participatory and empowering, and that is what this name means to us. {% endhint %}

The **beneficiaries** of a civic digital trust are the residents, visitors, businesses, workers and institutions in a defined urban zone where data is collected. This could be a neighbourhood, a district, or an entire city.

The **trustees** are a group of people with a fiduciary responsibility to protect the interests of the beneficiaries. A civic digital trust would need to decide if trustees are elected or appointed. It would need to put in place governance structures including public accountability and participation structures.

The **trustors** are individuals, companies, agencies and governments who donate digital and financial assets to the trust. While the civic digital trust would own



the digital assets, they may grant a licence to use the assets back to the trustors under the conditions of use established by the trust.

The **purpose** is the reason the civic digital trust is created, encoded in a mission and governing principles. The purpose should make it clear what value the trust is intended to deliver to its beneficiaries.

The diagram below summarizes the essential elements of a civic digital trust.

A civic digital trust must always be aligned to the specific data and digital assets at issue. Therefore, a trust that oversees public realm data (and possibly other data) from Quayside might have some unique features not seen in other civic digital trusts to date.



# Examples of Civic Digital Trusts

There are currently only a small number of working data or digital trusts in operation, and they have not yet been independently evaluated. With the rapid growth of the smart city industry, we anticipate the number of examples will also grow quickly and there will be many more case studies to learn from. We also expect the scope and scale of digital trusts to become increasingly ambitious. Because of the limited number of city examples, we also consider related applications of trusts for governing other data sets.

## Barcelona

In this pilot, residents will use environmental sensors which record factors such as noise levels and pollution. The sensors will be located inside their homes and in their neighbourhood.

DECODE technology will enable them to share this encrypted data anonymously with their communities, on their own terms. DECODE provides tools that put individuals in control of whether they keep their personal data private or share it for the public good.

**What Toronto can learn from this initiative:** This pilot project will glean insights into the ability for a data trust to function, provide oversight and generate value for the citizens of the city. Barcelona's [digital democracy software](#) is a great tool for civic participation in government. This initiative has portals such as [BCNOW](#) to allow for open data visualization. The data being collected stems from the investment in IoT environmental sensors throughout the city and in home, where citizens can choose to opt-in and share their data.

### Links:

[DECODE Website](#)

[Nesta DECODE Report 2018](#)

[DECODE Pilots \(Barcelona and Amsterdam\)](#)

## London

As part of London's ambition to be the smartest city in the world, the Open Data Institute (ODI) and London have joined forces to develop pilots in Greenwich that will focus on real time data from Internet of Things (IoT) sensors (ig. energy use, parking space occupancy and weather) to create solutions to city challenges, while maintaining the privacy and security of



Londoners.

**What Toronto can learn from this initiative:** The London initiative has several pillars on their [roadmap](#) to drive success of their vision of a smart city. An interesting area to learn and watch, is the development of the [Office of Data Analytics \(LODA\)](#), piloted in mid 2017, which will oversee the data sharing and collaboration of city data.

**Links:**

[The ODI London Collaboration](#)  
[Smarter London Together roadmap](#)

## **The Silicon Valley Regional School Board**

The Silicon Valley Regional School Board is working to tear down the silos between partners and other public agencies to create more value through safe sharing of personal data.

Sharing these data sets among previously siloed institutions, such as public school districts, public health, child and family services, mental health, juvenile justice and Education Technology companies, is allowing for a more robust understanding of contributing factors of student success and failure within the school system in Silicon Valley.

**What Toronto can learn from this initiative:** The SVRDT has created standards and principles for the agencies they work with to enrich children, especially those living in poverty. These standards and privacy methods hold these organizations to higher standards, which are balanced with the goals of collaboration to improve the student education experience.

**Links:**

[Silicon Valley Regional Data Trust \(SVRDT\)](#)  
[SVRDT Presentation](#)  
[SVRDT Building Trust](#)

## **Truata**

Truata is a private partnership data trust between IBM and Mastercard. Set up as a trust, Truata offers a new approach to handling data anonymization and analytics to help organizations meet the standards of personal data protection envisioned by the GDPR. Truata offers



its customers a service to fully anonymize data and provides analytic services to assist customers with tools, data insights, algorithms and reports that customers can use in their own products and solutions.

**What Toronto can learn from this initiative:** Understand the technical architecture and collaborative agreement for this private data trust partnership. While this is unlikely to be the right model for a civic digital trust, it can provide insight into the value proposition of data trusts for corporate data owners to participate in a civic digital trust.

**Links:**

[Truata website](#)

[Truata Privacy Innovation Award](#)

[Financial Times, Mastercard and IBM to set up European Data Trust](#)

## **Health Data Exchanges**

In the field of health, trusted data exchange models have been developed in many different jurisdictions. In the US, the Nationwide Health Information Network was established in 2004 to improve the quality and efficiency of healthcare by establishing a mechanism for nationwide health information exchange. A critical component of the NHIN is the trust model that bridges a diverse group of public and private entities. This trust model provides a common foundation for privacy and security obligations, accountability and governance in the midst of varying diverse federal, state and local policies and laws. Health information exchanges gather private and personalized data for the patient's entire health journey, including physician visits, hospital services, other health practitioners and medication services. This allows health care providers more complete information to aid in the diagnosis and treatment of the patients.

**Links:**

[Nationwide Health Information Network](#)

**What Toronto can learn from this initiative:** With highly sensitive personal data, there are methods to share information across organizations to drive value for patients. With such highly personal data, what measure are in place to ensure the privacy of the patients and accountability of the entities to use the data ethically? How are caregivers provided access to patient health data?



# Aspirations for a Civic Digital Trust

Aspirations are statements about what we hope to achieve with a civic data trust. A clear and shared purpose helps focus and prioritize what data collection to allow for which public benefits.

Based on a literature review, we provided participants in the civic digital trust workshop with a draft list of aspiration. Participants added to the list and then voted on the aspirations they thought were most important for the City of Toronto. The top four aspirations identified by workshop participants were to:

1. Bring forward the voices of marginalized groups (inclusivity, justice and equity)
2. Promote local and Canadian economic development
3. Strengthen democratic governance and institutions
4. Create a strong community of engagement and empowerment

Other principles that were considered by workshop participants, but not ranked as most important, included:

- Improve quality of life for residents and visitors
- Ensure access and equity of public services
- Improve affordability of urban life
- Enhance public safety
- Reduce the environmental footprint of urban settlements



## Have Your Say

What aspirations are most important to you? Complete this one survey question to have your say:

<https://www.surveymonkey.com/r/RSTFDGY>

Here are the survey results:

<https://www.surveymonkey.com/stories/SM-BD6MGKJ8/>



# Design Principles for a Civic Digital Trust

Establishing a civic data trust involves making many choices: Who should the trustees be? How are they selected or elected? How do they make decisions? What decisions do they have authority to make? How are decisions enforced? How are assets managed? What roles do governments and experts play? What laws apply? How can different laws that apply to different stakeholders be reconciled? How can citizens and stakeholders have their voices heard?

If aspirations provide a north star, design principles provide guidelines for making difficult choices. They can be useful for both establishing a civic data trust and for operating it. Design principles are most useful when they are specific and measurable. There should be no more than seven principles or they become too difficult to remember and to apply.

Based on a literature review, we provided participants in the civic digital trust workshop with a draft list of design principles. Participants added to the list and then voted on the principles they thought were most important. The top four principles identified by workshop participants were to:

1. Ensure transparency of the algorithms to understand their uses and impacts to users
2. Enable open dialogue and education around data sharing and uses
3. Ensure oversight and controls for data sharing
4. Provide open mechanisms for consent

Other principles that were considered by workshop participants, but not ranked as most important, included:

- Enable citizen participation and consultation in how their data is used
- Empower citizens to control access and use of their personal data
- Protect the integrity and confidentiality of data against unauthorized and unlawful uses
- Minimize the collection of personal data
- Allow for user participation to enable the right to be forgotten, accuracy of



information, and consented use of data.

Improve accountability for uses of data

Improve transparency

Not sharing data is an equally viable and desirable choice



## Have Your Say

What principles are most important to you? Complete this one survey question to have your say:

<https://www.surveymonkey.com/r/WT9WP6C>

Here are the survey results:

<https://www.surveymonkey.com/stories/SM-J7BDBKJ8/>



# Technical Architecture Options

The technical architecture defines how a civic digital trust works. A legal agreement is only as good as the trust's ability to allow the secure collection, storage and sharing of data, and to have oversight and insight into the algorithms that transform the data into real world uses.

The most significant choice of technical architecture is how centralized or decentralized the digital assets are held across the network. In this section we summarize five distinct architectures: centralized, semi-centralized, decentralized, open data, data marketplace, and data sharing agreements. This is meant to illustrate the variety of options, rather than be an exhaustive list.

Different technical architectures make sense for different purposes. In addition, different technical architectures will solve for different legal requirements, particularly where stakeholders who may contribute or use data are under different legal requirements. Selecting the best architecture requires clarity and precision about the specific purpose of the trust. For example, to achieve the purpose of enhancing public services, an open data architecture may best enable the local technology community to develop new insights, products and services. However, enhancing a subset of public services like health care delivery may not be achievable through open data architecture if there are legal restrictions on how hospitals can collect, use or contribute information. In these cases, a centralized architecture that reconciles legal requirements may provide the best technical architecture.



# Types of Data Sharing Models

## Centralized Architecture

**Description:** With a centralized architecture, the governing body creates the database, standards, platforms and holds them locally. With a centralized platform the governing body has the greatest control of the management and enforcement of the assets held within. This is due to the fact that the infrastructure in place was built by the organization, creating ownership of the assets.

**Data Access:** The data within this centralized method is stored in one place, with the governing body granting access through a central point of access.

**Data Analytics:** The governing body creates unified standards that the data and platform utilize. This allows for the most powerful search, analysis and quality assurance of aggregated data

**Costs:** Heavy upfront costs building and maintaining the centralized repository. Low ongoing costs relating to maintaining the repository.

**Change Management:** The centralized architecture provides the greatest control of change management, but may also inhibit innovation. {% endtab %}

## Semi-Centralized Architecture

**Description:** The semi-centralized data sharing platform is a hybrid between a centralized and distributed system. In practice, we have seen centralized platforms and infrastructure built by a governing body, with public and private institutions creating and maintaining their own sharable repositories of data which adhere to the governing body's principles and standards.

**Data Access:** A central portal or platform grants access to the multiple repositories of data.



**Data Analytics:** Cross-repository searching and analytics, metadata and aggregate statistics can be developed by the central authority.

**Costs:** There are costs associated with developing data interoperability mechanisms and common usage policies. Ongoing costs include operating and maintaining the portal and administering policies.

**Change Management:** The semi-centralized architecture provides moderate control measures, as the governing body can make adaptations and improvements to platforms and standards, but will require some co-ordination to facilitate change across any decentralized repositories.

## **Decentralized Architecture**

**Description:** In a decentralized system, the nodes of information are held with the various participating entities, and are all interconnected to encourage the sharing of their repositories for approved uses. In this system, the governing body creates standards and policies for all partnering entities to follow to ensure ease of access to information and the ability to utilize them. Each entity creates and manages their own repositories, and may provide their own individual platforms for data access.

**Data Access:** Access to each repository separately, but under a common usage or access policy and single approval.

**Data Analytics:** Because the data all held by various repositories, an index or catalogue is the only method to obtain data.

**Costs:** Initial costs are for the process to develop common usage and ontology. Ongoing costs include the management of the distributed ecosystem, the administration of policies and standards and maintenance of the repositories.

**Change Management:** The decentralized architecture provides some control measures, as governing body can create new standards, but will require substantial co-ordination to facilitate change across the repositories. Local innovation is easiest in a decentralized model.



## Open Data

**Description:** Common standards are created by an entity, collaboration, or group to create a repository of shared data. This method requires the exclusive use of non-personally identifiable information.

**Data Access:** Access to central repository with common usage, standards, access policy and single approval.

**Data Analytics:** Powerful search, analysis and high-quality assurance of aggregated data.

**Costs:** Initial costs to index and catalogue data and repositories. Little centralized costs and maintenance.

**Change Management:** Open data will require strong coordination across the system to have data sets in readable and usable formats. Open data also allows for open innovation. With open data, there is no ability to restrict or control its use.

## Data Marketplace

**Description:** Neutral legal, tax entity, and platform that brings together buyers and sellers of data.

**Data Access:** Central database of repositories.

**Data Analytics:** Cross-repository searching and analytics.

**Costs:** Platform as a service: Build a central platform and point of access. Monitoring Service Level Agreements that achieve data quality.

**Change Management:** The data marketplace provides control of change management, as establishing entity can dictate terms and conditions. Data may require cleaning and adaptation by contributing entities.



## Data Sharing Agreements

**Description:** An agreement between multiple institutions to share data according to certain terms and conditions. Data sharing agreements identify the standards which govern the collection, storage, security, analysis, re-use, and destruction of data.

**Data Access:** There is granted access to repositories through the agreements of each institutions with dictated terms and conditions around the use.

**Data Analytics:** Search and analytics of the repositories are limited to the agreed upon data sets. Requires careful consideration and strategy to compile complementary data sets to extract value.

**Costs:** Low costs relative to other models, as parties are granting access to data repositories. Costs include staffing and expertise to clean and make use of the data.

**Change Management:** Low change management ability as agreements are typically narrow in scope for a specific purpose. Flexibility is inherent as new agreements can be created to better suit needs of an organization.



# Business Model Options

*A civic digital trust could be housed within government; set up as a not for profit organization; or run as a for profit social enterprise.*

Where should a civic digital trust reside? How does it sustainably resource its operations? How does it avoid conflicts of interest?

The trust could be a new department within government or an arms' length agency of government. Governments already have representative democratic election processes, are stewards of the public interest, and it can be argued that politicians already have a fiduciary duty to their constituents. It could be a not for profit, either existing or established for the specific purpose of running the data trust. A neutral third party might have the least potential for conflict of interest beneficiaries.

It could be a for profit social enterprise. A for profit corporation could be lean, agile, and generate sustainable sources of revenue while ultimately serving a higher public purpose.

An example of a relevant arms-length agency of government is the Toronto Public Library. It is the world's largest neighbourhood-based library with the mission to empower Torontonians to thrive in the digital age and global knowledge economy. The Toronto Public Library is governed by a Board appointed by Toronto City Council. The Board is composed of eight citizen members, four Toronto City Councillors and the Mayor or his designate.

An example of a relevant not for profit is Code for Canada. Code for Canada is a national nonprofit that connects government innovators with the tech and design community. Their programs enable governments to deliver better digital public services and empower communities to solve civic challenges using technology and design. Code for Canada runs Civic Hall Toronto, which enables government innovators, entrepreneurs, nonprofits and community to share, learn and collaborate. Code for Canada has a privately appointed nine member Board of Directors.

An example of a relevant for profit enterprise is T4G. T4G is a privately held values-based company and certified B Corporation with offices across Canada. T4G builds intelligent software and provides advanced analytics services.

These examples are merely illustrative of a range of possible business models.



We do not intend to imply that any of these organizations are considering establishing a civic digital trust. Each of these business models has different strengths and weaknesses, which are summarized in the following table:



# Types of Business Models

	Government Department or Agency	Not For Profit Organization	For Profit Social Enterprise
<b>Applicable Privacy Legislation</b>	Freedom of Information and Protection of Privacy Act or Municipal Freedom of Information and Protection of Privacy Act	Personal Information Protection and Electronic Documents Act (only if the not for profit was engaged in a commercial activity)	Personal Information Protection and Electronic Documents Act
<b>Control and Enforcement</b>	Government agency as regulator to ensure shared citizen data use does not violate privacy laws. End users must still comply with minimum legal standards applicable to the end user.	Internal process. Compliance with regulatory standard. Entity can remove participation of data user and potentially enforce rights in court. End users must still comply with minimum legal standards applicable to the end user.	Subject to regulatory oversight. Compliance with regulatory standard. Entity can remove participation of data user and potentially enforce rights in court. End users must still comply with minimum legal standards applicable to the end user.
<b>Data Providers</b>	Government collected Data Public/Private partnerships	Government collected Data Public/Private partnerships	Collective/ Conglomerate
<b>Data</b>	Government Citizens Local businesses	Government Citizens Local businesses	Usually, Collective or Conglomerate But could include



User	Private Sector in general	Private Sector in general	Government, Citizens, Local Businesses, Private Sector in general
Value Generated	<p>Sharing data for the public good, improvement of quality of life for citizens (greater individual and collective benefit). Informed economic decisions. Infrastructure and resource efficiency Development and prototyping of new solutions Enables more competition of services for consumers</p>	<p>Enables <u>“reciprocal relationships between the public (the trust), technology companies (the licensee), and technology stakeholders (the users or investors or contributors or public)”</u> More democratisation of data (not just government or large private companies) Creates strategic partnerships</p>	<p>Flexibility and responsiveness to changing technologies and trends</p>
Monetization	Limit data that can be made open	Limit data that can	Limit data users
Model	Social value exchange	be made open	(stakeholders)



<b>Risks</b>	Governments currently lack the skills and resources Technical solution effectiveness and data breach concerns Slow uptake/progress in meaningful sharing of data by private sector Resistance of citizens to share data- lack of trust	Missions of private/public are often competing End-User identity profiling. Multiple overlapping data rights, specifically PII data. Data sharing agreements unclear on data publishing decisions. Technical solution effectiveness and data breach concerns Sector specific data risks and unintended consequences, eg. healthcare Slow uptake/progress in meaningful sharing of data	Absence of social mission/ disconnect with data subjects Commercial and legal risk for private entities involved Public trust needs to be established
	Limitations on how to achieve effective legal use of PII data. Data control and access among multiple competing	Lack of established business models Need for long-term vision and commitment: Potential change in organization if technology/	Changing regulatory environment - limit risk and exposure to shareholders
<b>Barriers</b>			



stakeholders. priorities change  
Lack of  
established  
business  
models

Interviews with subject matter experts emphasized the models of oversight for the trust needs to have representation from many stakeholders to balance the interests of the public sector, citizens and businesses. One interviewee thought that only residents should have a seat at the table. Another said that if you only have residents, the trust becomes just another consultation process: all influencers need a seat at the table to create a genuine negotiating space.



# Monetization Strategies

A civic digital trust requires significant resources to cover the cost of ongoing operations. Below are common methods to extract value from underlying business assets that are commonly used in today's digital economy.

- Freemium
  - A business model where a product or service has both free access (usually limited in functionality) and a premium version (unrestricted access) that allows users to test or utilize the functionality as needed.
  - Collective public private contribution of data sets for access other data repositories (open data, de-identified data sets, etc.)
  - This model of value capture is dominant in the mobile Apps. Typically free to download the basic version and any upgrades or further access require payment
- Subscription Model
  - A recurring fee for continued service or access
  - We see this model prevalent with digital assets from hosts such as Netflix and Spotify
- Fee for Access
  - Users can pay a fee for access to the products and services of a business This model is starting to emerge for online web access to news articles, by charging fees to non-subscribers
- Pay-Per-Use
  - A metered service, where the user of the product or service has access and charged for the interactions when used
  - Typically seen in cloud-based SaaS (Software-as-a-Service) models
- Social Value Exchange
  - Value exchange does not have to be monetary. Private institution might gain access in order to provide better public services
- Third Party Pays
  - Government, philanthropy or corporate sponsors may cover the costs of operations



# Concerns and Open Questions

During the civic digital trust workshop, we formed a breakout group to discuss limitations and concerns with the digital trust model. This section groups and lists the topics that were discussed and questions that were raised by the group.

## Structure and Formation

Legislation in Ontario and potentially other jurisdictions is limited to allow the creation of a legal trust with open-ended beneficiaries, so new legislation maybe required to set up a new kind of legal entity.

Reaching agreement on use with diverse stakeholders is challenging. The draft aspirations and design principles will require trust participants to go significantly beyond mandatory legal recruitments. This includes voluntarily entering into a joint legal agreement(s).

The digital trust model is too abstract and immature to know how it really works yet. Therefore, most of the feasibility and viability issues are determined on a case by case basis rather than being repeatable.

Why will people and businesses submit data to the trust? Whats in it for them? Are the defaults: Explicit opt-in (automatically in) vs. opt-in (choice to be in) vs. opt-out (in automatically with options to opt-out)? Is there an ability to opt-out of collections (no-go zones)?

Who would gain value from trust? Who would be compensated? Businesses that generate data vs data-driven organizations: what are the models for equitable sharing?



## Scope

What data is in and what is out? What is allowed use and what is not? What is the scope of authority for the trust? Who is accountable? What are the lines of communication with public, private sector and government? These are hard questions to get consensus on. To meaningfully address some uses the algorithms will need to be in scope.

Some of the concerns raised in a smart city that a trust might address relate to pre-existing private-market activity, such as mobile and consumer services data that might be combined with public realm data. For a trust to be effective, would it actually be given enough scope with respect to legal agreements and allowable uses to be useful? Can it address the broad spectrum of existing activity which maybe hard to define, agree and get participation for?

Geographic scope is hard to enforce and may not be a meaningful basis for determining scope of the trust, especially where the same data is collected under different consent agreements and for other uses outside of that geographic area. As the trust scales, geography is a less useful definition of scope than data content types and allowable uses.

If the beneficiary group is widely defined as any citizen or visitor to a zone in the city, who is allowed to bring action against the trust on their behalf and how?



## Governance Challenges

Data in a trust is likely to have been collected under different consents or legal regimes. It is unlikely the multiple legal regimes can be harmonized. By voluntarily bringing data into the trust there is the need to clarify which has legal regime has precedence for the trust.

There will be significant cost and overhead for the trust to fulfill its duties. There must be a sustainable model to cover these costs for the long term. The trust will require specialist resources.

Different allowed uses by the trust may require opt-in versus opt-out by individuals / data subjects.

The trust will have to manage in an environment where meaningful consent may not realistically be achievable. Constructing measures to uphold the interests of data subjects and beneficiaries will require strong due diligence and clarity with regulators. While this has been achieved in healthcare for example, the established practices and understanding of risk versus collective benefit has yet to be fully understood and practical steps will need to be developed.

Must trustors fully cease ownership of data? Might they retain full ownership while handing over control, determination of allowable use, and enforcement of allowable use to the trust?

When a trustor donates data and/or code to a civic digital trust, what risks and legal obligations are also transferred to the trust?

Inclusive governance and decision making. How to manage different obligations with respect to private and public data? There is a potential for compliance rather than impact as central objective. How is compliance enforced?

The trustee needs to know what the interests of the beneficiaries are -- so civil representation will be critical -- such as through citizen representatives.

The potential of a data trust is in creating an additional fiduciary requirement on the trustees to manage data and algorithms in the interest of the beneficiary. However, for that to be the case the beneficiary needs to be actually able to hold the trustee to account or enforce their interest. This means the beneficiary needs to know of a wrong; have the technical capacity to prove it; and then the financial capacity to enforce it.

Is a data trust less agile than more collaborative cross-sector data for good projects?



## Technical Challenges

If the scope of the trust is only a legal framework with no technical controls it may become harder for the trust to enforce. In practice, it may end up as a more retrospective validation or audit process, rather than fully pro-active management body.

Technical controls make the tracking and enforcement of allowable data uses more realistic. However, such technology will add operating cost to the trust and create the need to integrate those technical controls with the technology used by the trustors and licensees, which imposes a cost of participation on them. Given the current state of the art in data use audit and tracking, some significant further development may also be required for sufficient functionality to be widely available.

Will the technical architecture of the trust be secure? What are the risks of re-identification?



## Have Your Say

Do you have a concern or question we haven't thought of? Add it here:

<https://www.surveymonkey.com/r/825HHFX>

In summary, there are many practical questions that still need to be answered before a civic digital trust could be established.







# Use Cases: How a Civic Digital Trust Could Work

In this section, we explore particular uses of data within a smart city that can create public value. The purpose of creating imagined scenarios of use is to have a conversation about data sharing that is more relatable to everyday life. The details of each scenario draw on earlier discussions in the Primer (including different technical architectures and business models), putting the theory into practice.

The scenarios are illustrative, rather than realistic. They are not endorsements or recommendations of any particular civic digital trust model. We hope they get you thinking about what data you personally are and are not willing to share, for what uses, and how a trust could help.

We developed four use cases around key elements of smart cities to imagine how a civic digital trust could function in each scenario. Participants in our civic digital trust workshop created a fifth scenario to provoke discussions around the vast amount of data that is already being collected about us from our use of digital technology.

## **Utilities and Consumption**

Currently, the utility consumption and appliance data within citizen's homes and the broader building data is primarily siloed and not shared broadly to utilize network effects of the data. In a connected world, how can we create a trusted sharing environment for better use of this data to improve building efficiency, increase safety for tenants and hit environmental targets?

## **Adaptable Building**

With smart cities integrating elements of live, work and play into unified spaces, we are challenged to better understand how to balance these elements. With the use of technology we can capture the utilization of spaces like never before. How can we balance the need for privacy with generating the data needed to improve the spaces we live in?



## **Mobility**

As cities continue to densify, the challenge of moving people across the city and neighbourhoods becomes evident. In a hyper- connected world there are opportunities to stitch together multiple types of data to create deep insights into the movement of humans. *Data from our travel habits, transit utilization, heat mapping the travel patterns of the city can be used to better move through the city, how can we enable this?*

## **Smart Health Assistance**

There is a rise of preventative medicine, wearable technologies and access to information. We have great insights into our bodies and health that typically stays within our health apps and associated companies. Connecting that data to health services, emergency services can yield improvements to speed and efficiency of receiving treatment. How might we foster this collaboration to improve citizen health?

## **Enabled Citizen**

We are currently living a life that generates mass amounts of data that is utilized by major technology companies. Our location, habits and preferences are well known and documented and that data is being used to influence our behaviours, enhance current products and services as well as develop new ones. *How can we enable citizens to regain control and manage this data effectively?*

These use cases can help have a focused conversation around what data is needed to make these scenarios, to further understand how the citizen will be affected and what the composition of civic digital trust will be. Through the development of the use cases, we have challenged our interviewee's to think through these dynamic situations and test the limits of what types of data are needed, how they will be collected, how this information will be used and who will have access to it. Overlaying potential civic digital trust models on top of these data uses allows for discourse around the strength of the model, where it fails and where it adds value. The use cases forthcoming, have gone through initial iterations but are still applicable to continue to test and have discussions around.



We encourage you to ask tough questions and provide input around the viability of the data trust in these contexts, the ownership and enforcement models that would allow for unbiased innovation, and to question the types of data needed and how its captured.



# Sharing Energy Usage Data



## Initial Use Case

In this connected future, buildings and homes will be better equipped to understand the usage of utilities in their homes and businesses. Citizens and owners can access this data and insights generated by third parties to make better choices around how they use these services and utilities. This information can be shared to users to benchmark against similar individuals or families to better understand their utility consumption footprint against their peers.



# Data and Their Uses

Data Use	Data Needed	Data Capture Methods
Automated home and building management systems	Personal unit and business activity data. Occupancy data, Internal environmental data (sound, temperature, humidity etc) Weather and weather forecast data	In-home sensors(eg. Ecobee sensors, occupancy sensors) weather & weather forecast data feeds
District level optimization of energy system (storage, renewables)	Building utilization and consumption data Historical and projected usage Weather data Large appliance/ HVAC systems data	Building sensors Building Energy meters and submeters Building Automation Systems
Benchmarking and performance insights to home owners	Personal unit and business activity data Large end use appliance energy consumption data Whole building energy consumption data Self reported demographic data (e.g. how many people live at home etc.) to build consumer benchmarking profiles	Building and unit energy meters and submeters In-home sensors(eg. Ecobee sensors, occupancy sensors) end-use meters plug-load meters building energy reporting repositories



Targeted marketing for energy efficient products, conservation programs and rebates	Personal unit and business activity data Large end use appliance energy consumption data Self reported demographic data (e.g. how many people live at home etc.) to build consumer benchmarking profiles Self reported appliance information (# and types of appliances, age of appliance etc.)	In-home sensors (eg. Ecobee sensors, occupancy sensors) end-use meters plug-load meters
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There are three broad categories of data that will be needed to make buildings more energy efficient, healthy and comfortable. First, utility consumption data will be collected at a per unit and building basis from devices like smart meters, home and office accessories and sensors (e.g. Nest smart thermostats). Appliance and plug-load sensors can also aid in collecting device usage for items like your refrigerator, washing machine, and electric vehicle (EV) charging stations. Second, personal demographic data will be collected to segment usage and will be captured through building records and personal reporting (e.g. surveys). Last, environmental data, such as temperature and rainfall data will be collected to provide proactive mechanisms to reduce energy consumption.

To enable these uses, the following actors will be involved in collecting, sharing and using the data: building managers and owners, public utility companies, private energy management service companies, local technology companies, citizens and business owners.



## How It Works

This Civic Digital Trust will need to balance key stakeholders through this new means of sharing data. To balance the public and private interest in this use case, the civic digital trust could be managed by the public library. The public library has a long history of stewarding and sharing information for the public interest. Decision making about the trust's standards and purpose will be through a democratic process that includes citizens from the neighbourhood and the broader region. Experts, including academics from universities, will be engaged to inform the citizen decision-makers about the potential benefits and harms of data sharing. Enforcement of the decisions made by the trust happens through government oversight by the privacy commission. Data will be decentralized, as many ecosystem players will need to be present to create value for major efficiencies.



# What We Heard

## Changes to the Trust Model

Participants developed a concept of layered management of the civic digital trust. Higher levels of personal data could be managed by an increasing presence of and role for citizens. Personal and home data would be best managed with a jury of citizens supported by experts to account for the private nature of the data. In contrast, public or neighbourhood building data could primarily be managed by the library, as presented in the initial use case, with voices of citizens and government to bring additional perspectives.

Decision makers should include broader stakeholder groups, including not for profit entities and an ethics board to provide advocacy from their domains of expertise.

Government was viewed as the right institution to manage the enforcement, but participants were aware of the potential power dynamic and looked for a transparent process for enforcement and right-to-audit.

## New data and data uses

Data uses need to have clear terms of use and purpose to ensure 'good' behaviour of the data users.

Participants are cognizant of the power dynamics that may arise if landlords, utility companies, and private entities are privileged with too much information without sufficient regulations and standards to limit their influence in pricing and access to basic necessities (shelter, water, electricity, etc.).

Participants considered opt-in features for service discounts (e.g. for energy efficiencies). They also considered no-choice opt-in features for social obligation data (e.g. sensors for security and safety of a building).

## Have Your Say

<https://www.surveymonkey.com/r/8DLJ6YY>



## Summary

Important questions were raised around whether and how users would have the ability to opt-in to provide their data. Or would that choice would be made by the device or sensor provider that has aggregated data for that particular consumer segment, facility, or community? In the latter instance, what recourse do residents have to opt-out from providing their information to the trust? Does this capability need to exist if the data provided is aggregated and/or anonymized at source?

Commercial buildings often have a more complex dynamic, where some appliances and sensors are hard-wired into the building by the owner of the building, but it is actually the tenants who utilize the building and therefore the data generated represents their use. In these instances it can often be more complex to understand whose data is being collected, analyzed and shared, especially if the use case warrants getting consent or offering opt-out capabilities to the tenant or building owner.

If the public library is to manage the civic digital trust, key questions were asked around education and skills development at the public library. These gaps and education needs will need to be more fully defined if these options are to be considered in the future.



# Sharing Building Space Data



## Initial Use Case

With the emergence of live/work/play spaces in smart cities, builders need to carefully manage the co-existence of these three realms. Collecting data in these spaces will create both benefits and potentially new risks for landlords, tenants and businesses, ranging from noise complaints to space utilization rates of businesses. With modular building design, spaces can be dynamically optimized to meet the changing space needs (amount and quality) of tenants.



# Data and Their Uses

Data Use	Data Needed	Data Capture Methods
Landlordâ€™s would maximize revenue by minimizing vacancy	Space utilization rates Demographic trends Space requirement forecasts Seasonal impact on utilization rates Demand and vacancy rates across city, neighbourhood	Computer vision Smart sensors Self reported user space projections aggregated data sources on realestate vacancy rates by city, neighbourhood etc.
Business tenants could adapt the space to meet their needs (up, down or in terms of quality).	Space requirement forecast data Space utilization data Demographic data of users Business growth data and forecasts	Computer vision Self reported data on business forecasts User surveys
Better law enforcement (noise complaints)	Environmental data (noise, smell data)	sound sensors that capture decibel levels but do not record the



		sounds, voices etc
Better emergency services (smell of natural gas, location of people stuck in a building during a fire)	Environmental data (noise, toxicity data) Air quality data	smoke, smell and toxicity sensors air quality sensors temperature sensors (esp. extreme weather events)

The data required in this scenario includes: data from the citizen's unit, the building, and from the local businesses located in these buildings. These personal sources and sensor data from citizens' units includes sounds, smells, toxicity and occupancy data. These sources extend to common spaces within the building as well as an aggregated level between buildings. For resident businesses, energy data from major appliances and machinery, utilization and spatial data, foot traffic, and historical and forecasted business projections are required.

These data sources can be collected through various sensors that can capture noise, sound, visuals or data through computer vision, air quality and toxicity. Data from appliances and end-use plug loads capture energy usage. Self-reported business forecasts are needed, and supplemented through Point of Sale systems and financial applications.

This information will be useful for the building owner and managers to better utilize their space and adjust fair market value rents. Local businesses will be able to better manage their business by aligning their space requirements and budgets to appropriate spaces.



## **How It Works**

This trust is managed by a private sector corporation. They won a contract to provide impartial management of the trust for the purpose of efficient building management and tenant safety. Key decision makers will consist of citizens and tenants of the building, informed academics and experts. This mix of stakeholders provide perspectives on the livability of the community. A third-party enforcement mechanism will be in place to determine a social license to continue engaging with the use of the trust.

## **What we Heard**

### **Changes to the Trust Model**

Owners and managers of the civic digital trust must include a Business Improvement Area (BIA) or Condo Board representative to allow for alignment of the local interests in these spaces.

The stakeholder jury should expand to include perspectives from the tenant board, government and citizens outside of the local area.

Enforcement of the trust needs to incorporate legislation and policies, with the third party enforcement to extend beyond the rules of law and seek proactive recourse from entities that do not adhere to the standards of the trust.

### **New data and data uses**

Purpose-driven collection of data is paramount. This means having a clear understanding of what the purpose of the data is used for and also the technology to capture only the data required.

Data must reside within Canada, but we must recognize and understand the potential politics at play by restricting data and residency within Ontario for multi-national corporations.



# Have Your Say

<https://www.surveymonkey.com/r/87M8FG7>

## Summary

The data and insights generated in this use case can benefit both commercial building owners and managers, as well as tenants to dynamically transform building use to maximize utilization rates and revenue.

The granular data and insights generated from this use case could however generate new challenges around managing access and equity around how decisions are made around who gets to use these spaces.

Given that this use case provides the building manager the power to allocate space up or down for a potential tenant using data and analysis of the space, new regulations and best practices may be needed to protect tenant interests and/or to determine how space is allocated when the building owner and the tenant don't agree on how much space should be allocated for their use.



# Sharing Mobility Data



## Initial Use Case

Mobility within cities has been a challenge for cities and citizens alike. Data on movement can help cities better manage the traffic of vehicles and pedestrians, especially during peak times of congestion. With a digital layer of the city, deep insights on live movement data can be collected from both citizens and sensors from the environment to better understand, manage, model and regulate traffic flow.



# Data and Their Uses

## Data Uses

## Data Needed

## Data Capture Methods

Support better urban design, safety and planning requirements

Geospatially referenced traffic movement data (speed, mode, time)  
Road Accident data  
Current and forecasted urban infrastructure data  
Current and forecasted demographic data

Traffic sensors  
Emergency vehicle data  
City planning data & models  
Statistics  
Canada data and models

Realtime traffic management & even public transit dispatch based on traffic flow

Geospatially referenced real-time traffic movement data (speed, mode, time)  
Smart infrastructure data (e.g. from traffic lights, sidewalks, cross-walks)  
Public transportation fleet, availability, capacity data and location data

Traffic sensors  
GPS data  
Smart infrastructure  
Public transportation fleet and operator data

Innovative mobility service offerings that address market gaps

Geospatially referenced historical and/or real-time traffic movement data (speed, mode, time)  
Smart infrastructure data (e.g. from traffic lights, sidewalks, cross-walks)  
Public transportation fleet, availability, capacity data and location data

Traffic sensors  
Smart infrastructure  
Public transportation fleet and operator data  
Emergency vehicle data



	Road Accident data Current and forecasted urban infrastructure data Current and forecasted demographic data	City planning data & models Statistics Canada data and models
Improve safety through improved enforcement (red lights, speeding etc.)	Camera data Speed data License plate data	Traffic cameras Speed sensors Ministry of Transportation
Faster provision of emergency services	Geospatially referenced traffic movement data (speed, mode, time) Road Accident data Geospatially referenced real-time traffic movement data (speed, mode, time) Smart infrastructure data (e.g. from traffic lights, sidewalks, cross-walks)	Traffic sensors Smart infrastructure Emergency vehicle data



Travelling through a city we generate several types of data that through transportation infrastructure, and we also generate personal data. Understanding the citizen's journey through the city as well as how their journey compares to the aggregated population can provide great insights. This data can be collected through current devices and applications on phones, such as directions in maps, upcoming appointments in calendar, and movement data through GPS. Traffic flow and management systems can capture data through sensors to track road utilization, types of vehicles (ie. transit, biking, scooters, walking). Adding in weather and environmental data collected through sensors will add another dimension to understand how people move through the city under various weather conditions.

This information will be valuable to many organizations. Major mobility players, including local and regional mobility agencies, mobility technology players and platforms, transportation planners and urban planners to better manage traffic and congestion in the city. Other users of this data include emergency services, venture companies, and navigation platforms.

## **How It Works**

The civic data trust will need to incorporate the views of many stakeholders for the benefit of moving people more effectively and keeping pedestrians safe. A non-profit organization would be in a position to keep citizens best interests top of mind. Decision making ability will consist of a collaborative jury, including representation from citizens, government, private corporations, and academics. The enforcement mechanism would be a transparent enforcement process, where government legislation would be the standard with ability for the body to have the right to audit to ensure active compliance by organizations.

This data will be held in a semi-decentralized structure, with much of the infrastructure and public data sources held locally with public institutions. Private sector data will be stored via open cloud services. The trust will help open the data to collaboration with public agencies, the local innovation community and private institutions to foster innovation in this space.



# What We Heard

## Changes to the Trust Model

If government data is to be incorporated into a digital trust, then government needs to be part of the decision making group around what uses that data could be used for. Government would also need to retain the right to audit what its data was being used for.

Specifically define that the 'Types of Data' includes data provided by private sector actors.

## New data and data uses

There was an initial assumption among users that the data under consideration was only public sector data. Therefore, there was an initial view that this data should be made available as open data, so that it does not give any one party monopolistic advantage in accessing the data.

Later in conversation, a need was identified to specify that the data trust would also include data from the private sector. Law enforcement uses generated a fair amount of discussion, with concerns expressed around predictive policing and policing bias, if there was now a way to tie an identity to a vehicle (based on real-time license plate detection) even before the vehicle or driver violated a rule.

## Have Your Say

<https://www.surveymonkey.com/r/897RJYX>



## Summary

There was a strong need expressed to consider data de-identification at source by default, where use case specific exceptions. For example, for law enforcement purposes data cannot be de-identified at source.

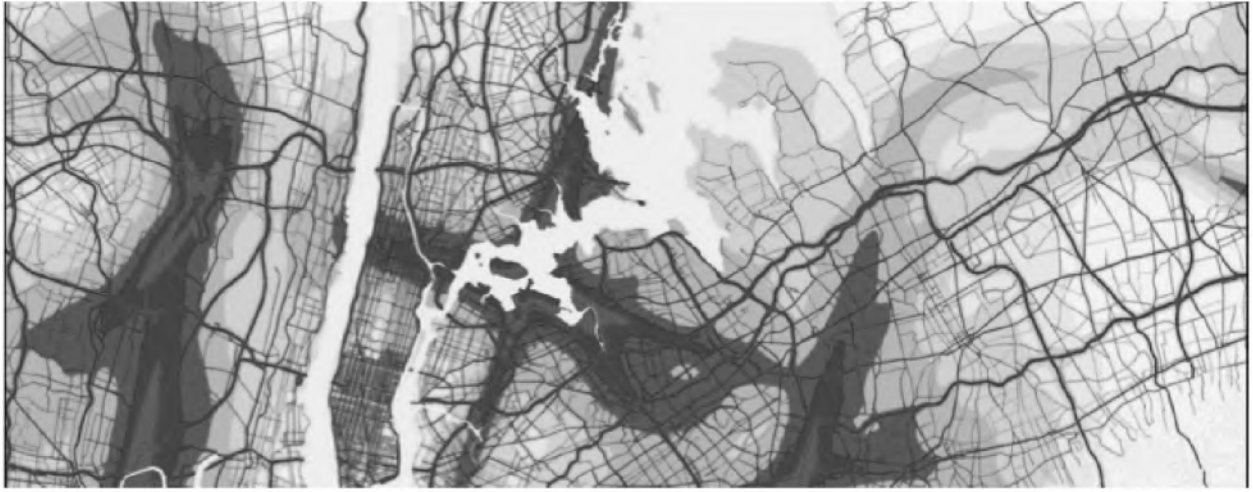
There was general consensus that given the volumes of data involved around mobility data, it would be better to have a decentralized model for data storage, which could then be pulled from as per the rules of the data trust. This would ultimately also be more secure and efficient in terms of data management.

Standardization and indexing of data will be critical to the usability of the data given the different types of providers of the data, both across the public and the private sector data holders

Given the various scale of geographies at which mobility is undertaken, there was also a view that the answer to what and how mobility data is managed within a trust would be different. For example, the answer to what and how mobility data is shared within my community will likely not be the same as a national scope mobility trust.



# Sharing Health Data



## Initial Use Case

Preventative medicine and constant health tracking from wearable devices create a shift in the way cities can provide emergency and preventative health care services. Utilizing the ability to track vitals through wearables enables better identification of people at risk during extreme heat or cold, power outages or natural disasters, and helps better route and allocate ambulances and emergency services to hot spots. Better preventative health outcomes and policies can also be achieved through integrated analysis of environmental and personal health data-sets.



## Data and thier Uses

Data Uses	Data Needed	Data Collection Methods
Provide better emergency response once falls are detected in homes with seniors	user health data sensor data to detect falls/impact user data	user health data from assisted living or care provider motion and impact sensors self reported user data
Preventative care and/or support for seniors, patients at risk of overheating or cooling in extreme weather events	weather & weather forecast data in home temperature, humidity, air quality data medical	geospatially referenced weather data feeds in-home sensors for temperature, humidity, air quality data from patient's



Remote monitoring supports aging in places safely and reduces burden of health care system

device &  
monitoring  
data  
user health  
data  
user data

medical device  
& monitors  
user health data  
from assisted  
living or care  
provider  
self reported  
user data

medical  
device &  
monitoring  
data  
user health  
data  
user data  
in home  
temperature,  
air quality and  
humidity data

data from  
patient's  
medical device  
& monitors  
user health data  
from assisted  
living or care  
provider  
self reported  
user data  
in-home  
sensors for  
temperature, air  
quality,  
humidity



The data needed in this scenario is a combination of personalized data as well as aggregated data of the population. Personal data includes activity tracking, vitals, in-home sensors, medical devices data and health records. With the prevalence of wearables and their increasing sophistication, much of this data can be captured. In this scenario, personal medical equipment and health agencies are able to integrate their systems for deeper insights into the health of the individual. Aggregated population health data can be gathered through personal sources and health agencies to provide demographic trends that can provide more responsive emergency services. Weather and environmental data will be useful in predicting and locating potential problem areas and can be captured by sensors throughout the city.

There are many potential users of this data. Health researchers and emergency services will generate benefits for the health and well being of citizens. Citizens themselves will be able to understand their personal health in better ways and make healthier choices. Private institutions, health practitioners, and urban planners can utilize this data to make better decisions of their products, services and patient care.

## **How It Works**

Health is a case of utmost privacy, and we put the onus on government to take the lead to manage and direct the choices of permissible data use. Government has developed enhanced capabilities to manage the data, provide security and usage access to the trust for improved health outcomes. A hybrid government with citizen jury would be present to further make decisions of the trust, with input from expert academics to provide insights and recommendations based on current and future trends of the industry. A separate government entity would be responsible for enforcement of the civic digital trust's permissible data uses.

Highly sensitive data, such as personal medical records and information from medical devices would be held directly in trust. Personal health data captured from wearable devices from private organizations will be stored domestically with decentralized integration into the trust.



# What We Heard

## Changes to the Trust Model

A more collaborative approach was recommended by participants. A collective multistakeholder group of citizens, government and community groups will need to collectively manage the civic digital trust.

Citizens would be the driver of the decision making within the trust, with experts informing the decision making process.

Enforcement needs to have an agency to be a proactive regulatory body. Policies and legislation are too reactive and an agency would be a method to be able to regulate more effectively.

## New data and data uses

Additional data uses were developed that were more future focused. Precision medicine and health services would be enabled with cross-institution data sharing, where the individual is better known in the health system. Health incentives and preventative health trends would be enabled with both public and private sector integration utilizing step and activity tracking to align fitness goals and promote a healthy lifestyle.

Anonymized data capture is top-of-mind for the public for aggregated demographic trends and public realm data.

# Have Your Say

<https://www.surveymonkey.com/r/8VWYF25>



## Summary

We already have a number of health entities that are and/or could be charged with managing access to digital health records. However, most do not include formal, multistakeholder decision making bodies. More thought should be given to how these existing health actors can be better leveraged to meet market needs and/or provide guidance to a potential civic digital trust.

Given that the majority of health sector data is managed by government and public sector entities, some serious thought should be given to whether they have the requisite expertise and capacity to provide the data needed for enabling the emerging digital trust use cases.



# Combining Consumer and Public Realm Data



## Use Case Developed in the Workshop

The average person checks their phone every 12 minutes, which adds up to 80 times per day. Data generated from these and other digital interactions dwarfs the amount of data currently collected by cities. It provides insights into individuals' lives at a level of detail and breadth never before possible. Individuals must provide consent for all the services used and data collected. However, full awareness of the data collected and its uses is impossible for anyone to keep up with. As data from those services is combined, the ability to create super-profiles of individuals' lives and movements increases and the risks of re-identification and commercial misuses increase.

This set of data and associated commercial uses and re-uses in themselves are a use case for a data trust to be able to assist consumers with consents and ensuring data is actually used in their best interests. Further, what if such depth of consumer behaviour data is able to be used with additional data collected from the public realm?

This case study is not one that we had prepared for the participatory workshop. It was one that emerged from participants who wanted to study "the elephant in the room" - all of the data that is already being collected about us.



As with all of the other use cases outlined, there is the potential for a heightened level of consumer profiling for targeted advertising and physical and digital service customization as a result of their health data, use of energy and buildings or mobility services. While some consumers may welcome that, the risk of marginalization of those unable to participate - or exploitation of those with no choice but to participate - may also occur. This use case is set within the wider context of a move towards a broader societal understanding and involvement in data; and of corporate responsibilities and accountability in the digital age.

## How It Works

This wider scope for a trust is defined in terms of the individual and the rights to data about them, rather than being defined by geography. It presents important considerations for how to define the trust and if a trust can cover such a breadth:

All third parties collecting any data for those within the geo-fenced area of the trust would be subject to the rules and obligations of the trust. This would include data for those that live, work or visit the area

Should that trust have a regulatory role on behalf of the citizens of that geo-area for managing the data those citizens produce? With this wider scope, the trust would be an initial test case for a broader governance mechanism on behalf of consumers.

The consumer could be presented with an additional consent option of accept, reject or let the trust manage and assure the selected use of data.

Would the trust then be better able to address the competitive disadvantages that new service providers face due to the massive existing consumer profile data held by incumbents?



## What We Heard

This level of existing data aggregation and use by private industry is seen as the elephant in the room. As a result in this use case the trust would have the fiduciary has responsibly not just for the data being collected from the new devices in the public realm, but from existing ones (ATM's, phones, cars, fitbits, etc.). Individuals would be able to sign up for the service the trust offers (opt in) and the trust would have the authority and resources to handle the data on their behalf.

For a service provider to get access to the data gathered from their own their devices, they would have to agree to a license agreement or to have their data open. So contractually that starts to open up an individual's data sets through that individual's control, managed on their behalf through the trust, to other service providers and level the commercial playing field.

This model would allow an experiment of how to resolve what is today an impossible situation of each us as individuals to manage our own data plus those from new sensors in the environment.



# Broad Citizen and Stakeholder Engagement

*During the civic digital trust workshop, participants identified some next steps for engaging citizens and stakeholders in a broader conversation. This section summarizes their advice.*

## Who we need to Engage

Broad engagement by the citizens of Toronto, public and private sector is needed to help shape this complex and important topic of data governance. Looking to all these stakeholders for input and feedback will require a substantial effort to understand the motivations and concerns of each. Large projects tackling data governance, such as the [DECODE](#) effort in the EU, provide an example on how to engage the public utilizing strategic pilots to create engagement, test technologies and platforms, and gather feedback.

## Citizens at the Centre

Through the development of the civic digital trust, there must be citizen representation at all stages. Because the trust will provide stewardship of data generated from the activity of citizens, the citizens themselves should be the primary beneficiary that we design this trust around.

Governments, regulators and public agencies should be the conveners and facilitators of this conversation, as they have formal authority and a duty of care. These stakeholders are fundamental to the conversation and will need to be in close collaboration during the process.

## Key Stakeholders

We recognize that there are categories of stakeholders that will need to be consulted and included in this process.



## **Experts and Academia**

Domain experts and academics on the forefront of digital governance, data, privacy, and civic participation will need to be consulted to provide the latest evidence to inform design of the trust.

## **Community Educators**

The community educators are the linch-pins in various community groups. These are the not for profits and community groups like Open North, Digital Justice Lab, and MaRS to name a few, that have a pulse for their community to be able to voice those perspectives, as well as provide domain expertise in their field. Whether its the voices of the start-up communities, open data and governance initiatives, or inclusive innovation, participants said we need to have more of these voices involved in co-creating potential solutions.

## **Innovators**

The innovators include the local civic and urban technology community. It is important to have their perspectives to ensure the models of data governance does not put them at a disadvantage compared to multi-nationals that already conduct business here in Canada.

## **Policy Makers & Conveners**

This group of policy makers needs to be in close proximity to the project for two reasons. First, the civic digital trust will need to operate within the legislation and rules governing privacy and acceptable uses of data. Secondly, we see the legislation and trust models as complementary pieces, and must work together to provide proactive protection of citizen data and privacy.

## **Community Groups**

These are the citizens in prominent groups in the city. Youth, local community groups, are actively solicited to partake in research studies, and contribute to the city they would like built. Toronto is a very diverse community of individuals from many different races, social statuses, and we must continue to capture their voices to make sure as we design smarter cities.



## **Core Service Providers**

These stakeholders include entities that provide core services to the city. Included are the telecommunication providers, utility companies, emergency services and essential services, like hospitals and education providers. Many of these industries are undergoing transformations with the emergence of technology, and having these stakeholders in these discussions will help identify uses of data that may need to be considered in future prototypes.

## **At Risk of Being Forgotten**

These are the citizens that typically do not have prominent voices in Toronto. Currently, informed citizens around this topic are engaging through round table discussions and workshops, but many more are still forgotten or disengaged in this process. A few groups we should work hard to include: new Canadians, refugees, individuals experiencing homelessness, individuals with mental disabilities, unemployed, pregnant mothers, individuals in poverty and individuals living in an analogue world with no technology. It is important to solicit feedback from these groups to ensure the diverse voices in Toronto are being captured, and that a civic digital trust works for the benefit of all.



# Prototyping Civic Digital Trusts

Prototyping a civic digital trust has been identified as an opportunity to explore how a potential smart city civic data trust could be operationalized in Toronto. A limited and narrowly defined civic digital trust prototype offers a unique opportunity to dramatically reduce the potential risks, costs and time required to extract the key learnings that are critical for advancing the exploration of a civic digital trust in Toronto. Workshop participants developed the following considerations.

## Selection Criteria

Key criteria for selecting a use case for prototyping should include the following considerations:

- Have a strong use case that drives the prototyping exercise (North Star use case)
- Generate compelling public value and wide public interest
- Connect both public and private sector datasets
- Look at using high quality data-sets to manage costs
- Use less sensitive datasets to reduce the risk of experimentation

Participants recommended developing a use case that explores data that is collected in the following four different scenarios:

- Data collected from public spaces
- Data collected in private spaces
- Data collected from semi-public spaces (hotel lobby or private parking lots)
- Data collected from cell phones (which was identified as a unique enough data source that it needed to be considered separately)



## Possible Prototypes

Deciding what use case should be tested first was a challenging exercise to consider. Some ideas to consider were:

- Understand critical issues that underly the dataset needed for the use case before selecting it

- Limit the number of datasets used but consider going deep into the planned and unplanned uses of the data

- Develop a use case that can leverage existing projects that are capturing and analyzing high quality data sets. An example used in the mobility sector was around the use of data that was being collected for the King Street pilot.

## Resourcing

Key resources that would be needed to develop a prototype include:

- Key stakeholders with a well defined use case that can be unlocked through existing datasets

- High quality standardized data sets

- Key public and private sector stakeholders

- Key users of data set for defined use case

- Independent expertise across multi-disciplinary sectors (legal, data protection, public interest, etc.)

- Funding for supporting all aspects of prototype design, execution and evaluation

## Evaluation

Establishing whether a prototyping exercise was successful could be established through the following key factors:

- The achievement of key metrics and design principles as defined at the start of the prototyping process

- Establishing whether the:

- Data users still want to continue to use the data

- Data subjects still want to have their data used

- Establishing whether the use case and associated architecture can be expanded beyond the prototype geography

- Understanding whether citizens understand the value that a trust is providing



# Developing Alternative Data Sharing Models

*A breakout group during the civic digital trust workshop discussed alternative ways to share data other than through a trust. Workshop participants and secondary research has identified the following options.*

## What are the Alternative Legal models

There are many existing models for how to agree the use of data between multiple private and public organizations and all of which have many variations specific to the situation. For the purpose of briefly comparing alternatives to a data trust we shall simplify somewhat by thinking about how different models vary based on:

1. How the data use agreements are structured in terms of the interests of one party versus being structured in the interests of many parties or the wider public interest
2. If enforcement of the terms of data use is internal to the parties to the agreement or if there is external enforcement to uphold the wider consumer or public interest

## Data licenses

Many data use arrangements between two single organizations are handled as data licenses allowing the other party to make use of data for a specific purpose.

This model is framed entirely around the needs and interests to the licensor or licensee, and any public good at stake has to be captured in the application and use by the licensee.

Enforcement of appropriate data use is only between the two parties upholding their respective interests



## **Data Sharing Agreements**

Data Sharing agreements allow the exchange and use of data between multiple parties and typically include licensing provisions on IP and allowable uses by all parties using the data and any common commitments to contributing data and other resources.

This model is framed around the collective needs of all the parties sharing data

Enforcement of appropriate data use is only between the set of parties in the sharing agreement.

## **Data Cooperatives, Joint Ventures and Partnerships**

A cooperatives, partnerships and joint ventures creates a set of agreements between participating organizations to manage the combined set of data in the interests of those contributing partners or members not just the needs of one or two organizations alone. This model extends into ensuring the business interests or outcomes are upheld and it may even create a distinct entity to manage that common interest. Agreements can become more complex in covering multiple contributing partners, their separate and joint interest in their individual IP individual and new IP form combined data and uses.

These models are all framed around the shared needs and interests of the data contributors within the cooperative, joint venture of partnerships as well as some common goals they are all seeking to achieve be those commercial or public interest goals.

Enforcement of use is still up to the set of parties in the data sharing agreement

## **Data Collaboratives**

Data Collaboratives are a new form of collaboration, beyond the public-private partnership model, in which participants from different sectors—in particular private-sector actors – exchange their data to create public value. Data collaboratives are an emerging model for unlocking the value of corporate data to find new, innovative, and data-driven solutions to combat public problems.

The agreements now become framed around the wider outcomes and beneficiaries rather than the needs of the participants themselves



- Enforcement of agreements and data use is still between the parties in the data collaborative

## **Ethics boards**

Ethics boards have long been used in research situations where the use of data in the wider public or scientific interest needs to be considered and decided, where there are potential implications on individuals.

The agreements now become framed around upholding wider ethical considerations, managing risk and undue harms as a result of data and its analysis.

The ethics board itself may now have a direct enforcement mechanism on the user of the data such as to halt use, remove funding or professional designations etc.

## **Designated organizations**

Designated organizations are a model often used in health care or other personal record situations such as education or welfare where consent cannot always be meaningfully obtained but the data is critical to the delivery of services, such as healthcare, in the interests of the individual or when used in aggregate the population at large. In these cases specific legislation defines what those designated organizations can hold, who can have access and for what purpose and the controls that must be in place. The agreements that determine data and its use are framed in the interest of the individual and wider population

Most designated organizations are subject to specific oversight and enforcement mechanisms appropriate to the nature of their work and their sector.



## **Where do Civic Digital Trusts fit Alongside other Solutions?**

A Civic Data Trust would fit at the top of both spectrums. The agreements on data use are framed in interests of the wider public interest and potential data subjects or individuals whose consent cannot meaningfully be obtained in advance or for all uses. The trust model provides for an explicit enforcement mechanism against members of the trust, but additionally against the trustees if they are not acting in the interest of the beneficiaries (subject to them being able to use that enforcement).



# General References

Reference	Description
	A broad survey of the data literature that summarizes five different ways to think about data trusts:
Jack Hardinges, <u>What is a Data Trust?</u>	<p>A data trust as a repeatable framework of terms and mechanisms.</p> <p>A data trust as a mutual organisation.</p> <p>A data trust as a legal structure.</p> <p>A data trust as a store of data.</p> <p>A data trust as public oversight of data access.</p>
Jack Hardinges, <u>Defining a Data Trust</u>	<p>Special project at the ODI around how to increase access to data while retaining trust. Article revolves around four key areas when thinking about a data trust.</p> <p>Applying the legal trust concept to data</p> <p>The motives of a data trust can be both good and bad</p> <p>Protecting against poor uses of data and supporting good ones</p> <p>Piloting a data trust</p>
<p>Bianca Wylie and Sean McDonald, <u>What is a Data Trust?</u></p> <p>Sean McDonald and Keith Porcaro, <u>The Civic Trust</u></p>	<p><u>Nesta</u>, a global innovation foundation focused on solving the big challenges of our time. The following are a few blogs around the issues of data, privacy and innovation.</p>



Nesta Blogs

"Eight smart cities that are restoring privacy and empowering citizens with data"

"Striking a balance: Data protection vs. Data Driven Innovation"

GovLab, improving people's lives by changing the way we govern

GovLab

Data Collaboratives

Data Responsibility



# Technical References

Dame Wendy Hall and Jérôme Pesenti, Growing the artificial An independent review on how the Artificial Intelligence industry can be grown in the UK. The report made a widely referenced recommendation to

intelligence industry in the UK establish a data trust and provides a high level description of how it could operate.

Quyet H. Cao et al., A trust model for Data Sharing in smart cities A study focused on data usage transparency and accountability and propose a trust model for data sharing in smart cities, and a mechanism to enhance transparency and accountability for data usage.

Zaheer Khan et al., Towards CloudBased Smart Cities Data Security and Privacy Management The framework in this study aims to provide end-to-end security and privacy features for trustable data acquisition, transmission, processing and legitimate service provisioning



## AGENDA

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- 1:00 pm Welcome & Opening Remarks**  
*Michael Geist, Chair, Waterfront Toronto's Digital Strategy Advisory Panel*
- 1:05 Introductions & Agenda Review**  
*Nicole Swerhun, Facilitator, Swerhun Inc.,*
- 1:15 Data Stewardship**  
*Kristina Verner, Vice President, Innovation, Sustainability & Prosperity, Waterfront Toronto*
- 1:35 City of Toronto Update**  
*David Stonehouse, Waterfront Secretariat, City of Toronto*
- 1:40 Data Stewardship Body: Models & Learnings from other Jurisdictions**
- 1:40 Reviewing the International Context, with examples from other jurisdictions  
*Lisa Austin, Professor and Chair in Law and Technology, University of Toronto Faculty of Law*
- 2:00 Open Data Process and Landscape  
*Kevin Tuer, Managing Director, Open Data Exchange & Vice President Strategic Initiatives, Communitech*
- 2:15 Discussion** (small table and full room)
- 3:00 Break**
- 3:15 Digital Trusts**
- 11:15 Models of Digital Trusts  
*Chantal Bernier, National Practice Leader Privacy & Cybersecurity, Dentons*
- 11:25 MaRS Report on Civic Digital Trusts  
*Alex Ryan, Joe Greenwood, MaRS*
- 3:45 Discussion continued** (small table and full room)
- 4:55 Closing Remarks**  
*Kristina Verner, Vice President, Innovation, Sustainability & Prosperity, Waterfront Toronto*
- 5:00 Adjourn**

### Questions for Discussion:

Do you have any questions of clarification for the presenters?

Based on the presentations and discussions shared, and your insights and expertise, what ideas or advice would you like to see Waterfront Toronto consider related to data stewardship at Quayside?





**WATERFRONT**Toronto

# Digital Strategy Advisory Panel - Meeting # 9

MONDAY, APRIL 1, 2019 FROM 11:00AM TO 5:00PM

WATERFRONT TORONTO

20 BAY STREET, SUITE 1310

TORONTO, ON, M5J 2N8





**WATERFRONT**Toronto

## Meeting Book - Digital Strategy Advisory Panel - Meeting # 9

11:00 - 11:05	1. Opening Session a. Call to Order		
	a. Call to Order		M. Geist
	b. Approval of Agenda	Approval	All
	Agenda - Page 4		
	c. Declarations of Conflict of Interest	All	
	d. Approval of Previous Minutes	Approval	All
	i. February 14, 2019		
	Draft Minutes - DSAP Meeting February 14, 2019 - Page 6		
11:05 - 11:15	2. New Panelist Welcome	Information	All
11:15 - 11:20	3. Chair's Remarks		M. Geist
11:20 - 11:30	4. Management Report	Information	K. Verner
	Managment Report - Page 10		
11:30 - 12:00	5. Working Group Reports		
	a. Governance	Information	
	b. Architecture	Information	
	c. Criteria	Information	
12:00 - 12:15	6. Overview of Process on Sidewalk Labs Review	Information	K. Verner
	DSAP Role in Evaluation - Page 14		
12:15	7. Motion to go into closed session	Approval	All
	The Panel will discuss the matters outlined in Item 6i, being Confidential Draft Briefing of Digital Innovation Materials, in a Closed Session as permitted by By-Law No. 2 of the Corporation. The exception relied for the discussion of Item 6i in Closed Session is Section 6.1.1(l) of By-Law No. 2. The Panel will continue in Open Session at the end of the Closed Session to discuss and vote on any resolutions pertaining to the Closed Session.		
12:15 - 12:30	Break		
12:30 - 2:00	8. Waterfront Toronto Overview of Materials	Information & Discussion	K. Verner V. Lockton G. Takach C.



2:00- 2:10	Break		Bernier
2:10 - 4:10	9. Sidewalk Labs Material Walkthrough & Panelist Questions	Information & Discussion	A. Harvey Dawson C. Nevill- Manning P. Ramaswami
4:10 - 4:45	10. Panel Advice to Waterfront Toronto	Discussion	All
4:50	11. Motion to go into Open Session	All	Approval
4:50 - 4:55	12. Resolutions Arising from the Closed Session (if any)	Approval	All
5:00	13. Adjournment	Approval	All



**WATERFRONT TORONTO DIGITAL STRATEGY ADVISORY PANEL**  
**MEETING #9 - AGENDA**  
 April 1, 2019 -11:00am - 5:00pm  
 Waterfront Toronto Boardroom  
 20 Bay Street, Suite 1320 Toronto, Ontario M5J 2N8

11:00 - 11:05	<b>1. Opening Session</b> <ul style="list-style-type: none"> <li>a. Call to Order</li> <li>b. Approval of Agenda</li> <li>c. Declarations of Conflict of Interest</li> <li>d. Approval of Previous Minutes               <ul style="list-style-type: none"> <li>i. February 14, 2019</li> </ul> </li> </ul>	Approval  Approval	M. Geist All All All
11:05 - 11:15	<b>2. New Panelist Welcome</b>	Information	All
11:15 - 11:20	<b>3. Chair's Remarks</b>		M. Geist
11:20 - 11:30	<b>4. Management Report</b>	Information	K. Verner
11:30 - 12:00	<b>5. Working Group Reports</b> <ul style="list-style-type: none"> <li>a. Governance</li> <li>b. Architecture</li> <li>c. Criteria</li> </ul>	Information  Information  Information	
12:00 - 12:15	<b>6. Overview of Process on Sidewalk Labs Review</b>	Information	K. Verner
12:15	<b>7. Motion to go into closed session</b>	Approval	All
	The Panel will discuss the matters outlined in Item 6i, being Confidential Draft Briefing of Digital Innovation Materials, in a Closed Session as permitted by By-Law No. 2 of the Corporation. The exception relied for the discussion of Item 6i in Closed Session is Section 6.1.1(l) of By-Law No. 2. The Panel will continue in Open Session at the end of the Closed Session to discuss and vote on any resolutions pertaining to the Closed Session.		
12:15 - 12:30	<b>Break</b>		
12:30 - 2:00	<b>8. Waterfront Toronto Overview of Materials</b>	Information & Discussion	K. Verner V. Lockton G. Takach C. Bernier
2:00- 2:10	<b>Break</b>		
2:10 - 4:10	<b>9. Sidewalk Labs Material Walkthrough &amp; Panelist Questions</b>	Information & Discussion	A. Harvey Dawson C. Nevill-Manning P. Ramaswami



4:10 - 4:45	<b>10. Panel Advice to Waterfront Toronto</b>	Discussion	All
4:50	<b>11. Motion to go into Open Session</b>	Approval	All
4:50 - 4:55	<b>12. Resolutions Arising from the Closed Session (if any)</b>	Approval	All
5:00	<b>13. Adjournment</b>	Approval	All



**WATERFRONT TORONTO  
DIGITAL STRATEGY ADVISORY PANEL  
MEETING #8 - MINUTES**

February 14, 2019 - 1:00pm – 4:00pm

Video Archive of Meeting: <https://youtu.be/Kx-YOTCmEBU>

PANELISTS:	Michael Geist	Andrew Clement
	Charles Finley	Teresa Scassa (remote)
	Jutta Treviranus (remote)	Pamela Robinson
	Kevin Tuer	Dave Dame
	Mark Wilson	Alaina Aston
	Carlo Ratti (remote)	

REGRETS: None

**WATERFRONT TORONTO MANAGEMENT & EXTERNAL LEGAL:**

Kristina Verner  
Chantal Bernier (remote)  
George Takach

**GUESTS:**

Prem Ramaswami	Sidewalk Labs
Craig Nevill-Manning	Sidewalk Labs
Alyssa Harvey Dawson	Sidewalk Labs

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**1a. CALL TO ORDER**

Being a quorum of Panelists present, the meeting was called to order at 1:08 p.m. Dr. Michael Geist, Chairman of the Panel, presided as Chairman of the meeting.

**1b. APPROVAL OF AGENDA**

On a motion made by Mark Wilson, seconded by Kevin Tuer, it was resolved to approve the agenda for the meeting. Motion Carried.

**1c. DECLARATIONS OF CONFLICT OF INTEREST**

No new conflicts of interest were registered.

**1d. APPROVAL OF PREVIOUS NOTES**

On a motion made by Dave Dame, seconded by Kevin Tuer, it was resolved to approve the notes from the meeting on January 17, 2019 as amended by panelists. Motion Carried.



## 2. CHAIR'S REMARKS

Dr. Geist provided opening remarks to the panelists. Sli.do continued to be used as a tool to help coordinate comments and questions during the session.

## 3. MANAGEMENT REPORT

**Data trust primer** - The primer was published January 18, 2019. The primer is a living document, so continued input is welcome.

**DSAP new member recruitment** - 14 applications received and reviewed.

**Manager, Digital Governance** - The interview process for the short-listed group of applicants is complete; update to be provided in closed session.

**Civic Labs** - The Civic Labs exploring the notion of a Civic Digital Trust, originally scheduled for February 13, 2019 was rescheduled to March 4, 2019 due to weather. The following Civic Labs session will be held March 26, 2019 focused on data ownership, monetization and shared benefits.

**Stakeholder Advisory Committee** - Session to be held February 26, 2019 focusing on technology proposals from Sidewalk Labs.

**Ontario Government Data Consultation** - The Ontario Government launched the first phase of its data strategy consultation on February 5, 2019 and has reached out to Waterfront Toronto to provide input.

## 4. SIDEWALK LABS TECHNOLOGY UPDATE

After a recap of the prior meeting's presentation, Prem Ramaswami, Craig Nevill-Manning and Alyssa Harvey Dawson presented on three primary topic areas: end-to-end data use case examples, the use of open standards, and digital accessibility principles. Additional details are available through the slides provided in the meeting book.

The presenters stated that Sidewalk's understanding of what parties would be developing and operating various elements of the urban digital architecture has been, and will continue to, evolve. They also noted that product development is early in the process, and the presentation reflects current thinking.

**Product Development Cycle** - Prior to presenting on specific technologies, a description was given of Sidewalk Labs' product development cycle. This cycle involves four phases in two primary stages: Discovery (involving the Ideation and Definition phases), and Delivery (the Iterative Design and Implementation phases). Privacy by Design is incorporated into the Ideation phase. Additional details are available through the slides in the meeting book.



Panelists raised questions around how Sidewalk was integrating public engagement into the product development process, noting that more interactions would be necessary than for a typical product. Panelists also questioned at what technological layer (architectural, platform, or sensor/product) engagements were taking place, and how Sidewalk determined on which “pain points” they would focus their engagements. They wondered whether a roadmap, interactive dashboard or other central tool existed or could be created to show what products were currently being considered (and what feedback was being requested/had been provided). Throughout this discussion, Sidewalk stated that they had undertaken significant public consultation through a variety of means, as would be described in the MIDP. They stated that they were still seeking the best balance between engagement during development and testing. Lastly, they noted that the MIDP would describe all of the technologies currently being considered.

**Real-time Measurement to Improve Mobility** - P. Ramaswami then described the Numina pilot currently underway at 307. Additional details are available through the slides provided in the meeting book. Panelists commented that problems in an urban environment are complex, and positive outcomes often cannot be simplified into a single goal such as ‘increased mobility.’ Technological solutions will not always be the best approach. Panelists also raised questions about re-identification of data in the system, particularly when under pressure from law enforcement during emergency events (such as Amber Alerts), and the public accessibility of de-identified data. Sidewalk noted that they are alert to many of these issues, and they are answers that either need to be worked through or would not be determined by Sidewalk. They also noted that there is on-going internal discussion between the urbanists and technologists at Sidewalk; the information presented here is more focused on technology given the nature of the Panel.

**Open Standards:** Skipping the second data use case contained in the slides, Craig Nevill-Manning then presented on Open Standards - in particular, the benefits of making open data available in standard formats via standard interfaces. Sidewalk will support existing standards and solutions where they exist, and where needed, develop new formats and means of access with as broad a range of partners as possible. Cost, Governance and Access proposals for standardized open data were also described. However, it was also noted that the presented information is an over-simplification, focus more on goals than specific solutions. See the slides in the meeting book for further detail. Panelists asked clarifying questions including around the relationship between open data and the proposed Civic Data Trust, and highlighted the cost associated with governance of this data. Sidewalk clarified that there is not consensus around intended models of data openness.

Sidewalk stated that it would provide readings to the Panel around the Estonia model.

## **5. MOTION TO GO INTO CLOSED SESSION**

On a motion made by Mark Wilson, seconded by Charles Finley, the Panel moved into closed session to discuss the MIDP evaluation process.



**6. MOTION TO GO INTO OPEN SESSION**

On a motion made by Pamela Robinson, seconded by Mark Wilson, the Panel moved into open session. Motion carried.

**7. MIDP REVIEW ROLE AND PROCESS**

Kristina Verner stated that on potential feedback protocols from the Panelists. It was noted that it will be permissible and beneficial for the panel to have a diversity of views on the MIDP and its individual components; Panelists are not expected to reach a single consensus. As well, it was noted that the ultimate feedback product produced by the Panel would be made public, though private working sessions may encourage more candid feedback. The goal, though, would remain to maximise public input. Waterfront will, though, defer to the Panel on their preferred methodology for the review.

**8. MOTION TO GO INTO CLOSED SESSION**

On a motion made by David Dame, seconded by Kevin Tuer, the Panel moved into closed session to confidentiality agreements for the MIDP chapter.

**9. MOTION TO GO INTO OPEN SESSION**

On a motion made by Kevin Tuer, seconded by Dave Dame, the Panel moved into open session. Motion carried.

**10. ADJOURNMENT**

On a motion made by Mark Wilson, seconded by Andrew Clement, and carried unanimously, it was agreed that there was no further business of the Panel to transact, the meeting was closed at 4:45 p.m.



APRIL 1, 20 19

# Management Report

Kristina Verner, Vice President, Innovation, Sustainability & Prosperity

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# Developments since February 14, 2018

Standing Committee on Access to Information, Privacy and Ethics – February 21, 2019

## Working Group Meetings

- Panel Governance & Nomination – March 15, 2019
- Architecture – March 25, 2019
- Evaluation Criteria – April 12, 2019

## Civic Digital Literacy

- Info Sheets – Social media campaign has continued
- Civic Labs
  - Civic Lab #2: Civic Digital Trusts held March 4, 2019
  - Civic Lab #3: Data Ownership, Monetization & Shared Benefits held March 26, 2019

DSAP New Panelist Recruitment – 3 new panelists selected.

Manager, Digital Governance – Onboarding has been complete.

Additional External Legal Counsel on Intellectual Property Matters

## Forecast: Public Consultation on Digital Issues

- A full scale public consultation on digital issues is currently being planned for mid-May 2019.



# Thank you.

Waterfront Toronto  
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[www.waterfronttoronto.ca](http://www.waterfronttoronto.ca)

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# Role of DSAP in the Evaluation Process

Digital Strategy Advisory Panel Meeting  
April 1, 2019



# Key Elements of the DSAP Review



The Digital Strategy Advisory Panel will be providing its review and comments to the following pillars:

- Digital Innovation
- Volume III: Intellectual Property

In the case of the Digital Innovation pillar, DSAP is serving as the Subject Matter Expert.

Working groups of the DSAP are currently working on independent architecture models and providing input to the evaluation criteria to ensure they are comprehensive.

DSAP will receive a confidential briefing and preliminary draft of the Digital Innovation chapter in April 2019 to begin their due diligence process, providing high-level feedback to Waterfront Toronto to identify areas of concern.

DSAP will not be providing a scored review of the MIDP, but rather providing comprehensive comments that will form the basis of a consensus report, and as appropriate, a minority report, that will be factored into the pillar review and evaluation. This report will become public as part of DSAP's overall commitment to openness and transparency.

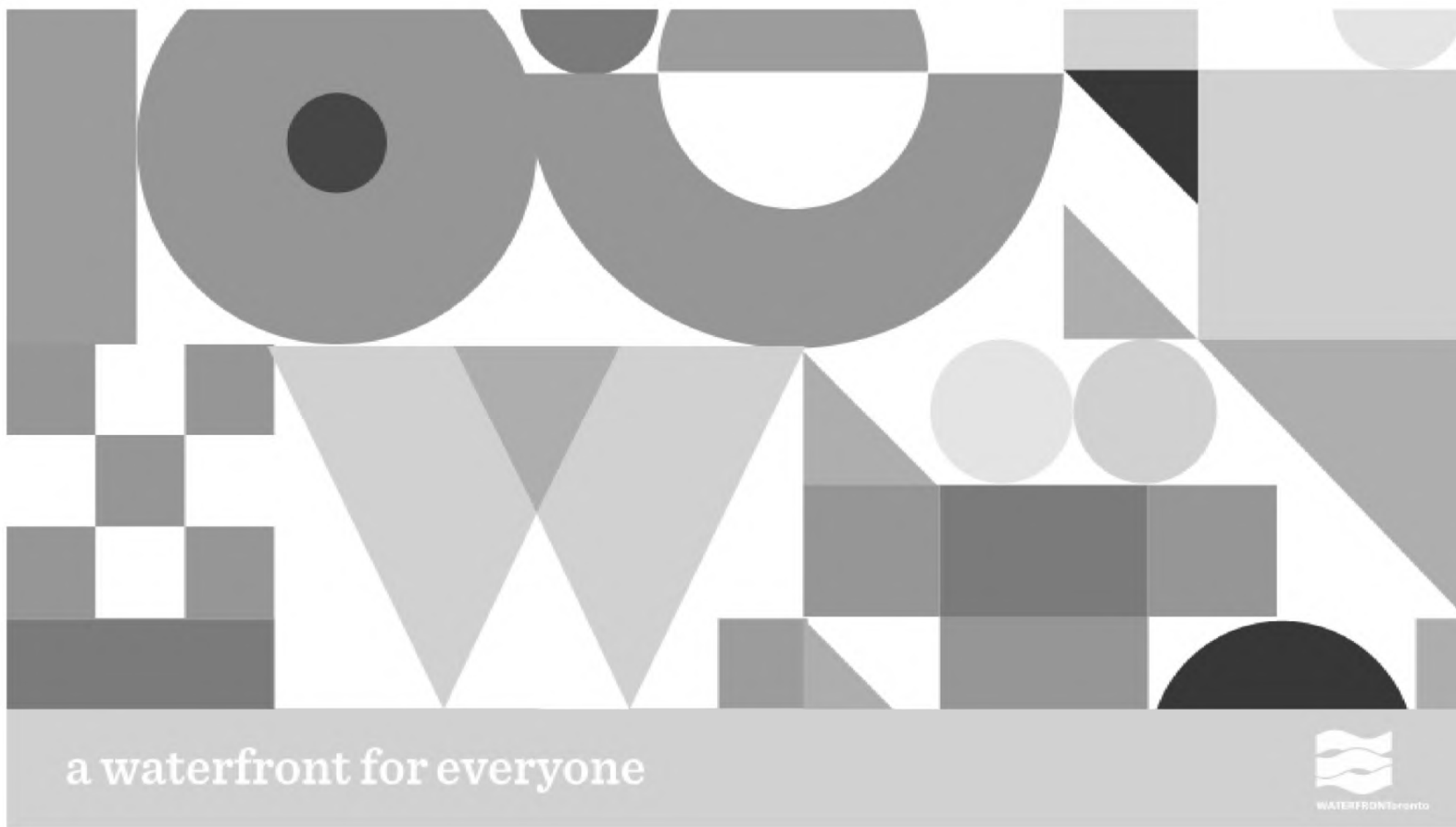


## 2019–2020 DSAP Dates



- Monday, April 1, 2019: 11:00 am – 5:00 pm
- Thursday, June 6, 2019: 1:00 pm – 5:00 pm
  - Additional meetings will be scheduled to discuss the MIDP contents once the public release schedule is finalized.
- Thursday, September 12, 2019: 1:00 pm – 5:00 pm
- Thursday, November 7, 2019: 1:00 pm – 5:00 pm
- Thursday, January 23, 2020: 1:00 pm – 5:00 pm
- Thursday, March 12, 2020: 1:00 pm – 5:00 pm







## Waterfront Toronto Digital Strategy Advisory Panel (DSAP) #10

July 22, 2019 - 1:00pm – 5:00pm

20 Bay Street, Suite 1310, Toronto Ontario M5J 2N8

Boardroom/Townhall Meeting Rooms

I. Khan attended DSAP meeting of July 22, 2019.

- **Dr. Michael Geist**, Law Professor, Canada Research Chair in Internet and E-commerce Law, University of Ottawa
- **Kristina Verner**, VP Innovation, sustainability & prosperity, Waterfront Toronto
- **Andrew Clement**, Professor Emeritus, Faculty of Information, University of Toronto
- **Vance Lockton**, Manager Digital Governance, Waterfront Toronto
- Diane Reynolds
- **Dave Dame**, Agile Leader, Digital Factory, Scotiabank
- **Charles Finley**, Global Director of Marketing & Communications, IBI Group, and Co-Founder and Chair of Code for Canada
- **Dr. Pamela Robinson**, MCIP RPP, Associate Professor, School of Urban and Regional Planning and Associate Dean, Graduate Studies and Strategic Initiatives, Faculty of Community Services, Ryerson University (by phone)
- **Dr. Teresa Scassa**, Canada Research Chair in Information Law and Policy, University of Ottawa, Faculty of Law
- **Karen Gomez**, Municipal Innovation Exchange
- **Mark Wilson**, former IBM Executive and former Chair, Waterfront Toronto
- **Alaina Aston**, VP, Data Management & Governance, Personal & Commercial Banking, RBC
- **Chantal Bernier** (by phone)
- **George Takach** (by phone)
- **Prem Ramaswami**, Sidewalk Labs
- **Josh Sirefman**, Sidewalk Labs
- **Jacqui Lu**, Sidewalk Labs
- **Eugene Kim**, Sidewalk Labs
- **Chelsey Colbert**, Sidewalk Labs
- **Alyssa Harvey-Dawson**, Sidewalk Labs

### Key takeaways

#### **Public Consultation Feedback**

After the approval of the agenda and declarations of conflicts of interest, Kristina Verner provided a quick update on the Waterfront Toronto Management Report. Verner then invited Nicole Swerhun of Swerhun Facilitation, a public consultation firm, to provide a **recap of the public consultations** held by Waterfront Toronto over the last several weeks. Swerhun noted that generally the MIDP had been well-received so far, seven key themes had arisen from the feedback of the 650+ in-person participants that attended the consultations and drop-in sessions, summarized as follows:

1. **12 acres could work, but more than that is overreach.** Innovation enthusiasm is tempered by scale. Proposal doesn't specify why scale is needed.
2. **Innovations are well-received** – openness to using digital and technology for innovation. But people want to understand how this would work at Quayside.



3. **Public oversight and governance is essential** – some are receptive to data collection if overseen by regulator, if regulator has power to enforce. Others don't believe in data collection – not enough info in MIDP on this proposal.
4. Frequent feedback that **Sidewalk Labs and Alphabet are not particularly well trusted**.
5. **Need more detail and a public lens for digital innovations**. Many are concerned about the use and collection of digital data — especially by private actors — and the potential for hacks, breaches, racial segregation, and more.
6. Consistent feedback that **MIDP is difficult to navigate**, difficult to identify what is being proposed to being implemented. Public wanted MIDP to be narrowed down, concise and shorter so people can get their head around it. Difficult to understand how volumes connect to each other. Perhaps integration would have been most useful.
7. **Many support further consultations** so they have more time to digest what is in MIDP. Some question Waterfront Toronto's ability to be neutral given its past working relationship with Sidewalk Labs.

Swerhun stated that the draft summary report will be public by the end of next week and shared with all participants to ensure that their views were captured accurately.

#### ***Procedural Issues***

The focus then turned to procedural issues, including discussion on the ongoing work being carried out by the Governance Working Group and the Criteria Working Group. The Governance Working Group discussion centered on sections 5.1-5.3 of the Code of Conduct for Panel Members, which outlines rules for what and how panel members can speak publicly about the Panel.

The Criteria Working Group Discussion provided an overview of the Panel's plans to provide a report on the Draft MIDP. Members of the Working Group signaled that Phase I would provide preliminary commentary on the MIDP, to be shared with Waterfront Toronto and Sidewalk Labs by August 16, 2019. Meanwhile Phase II would involve the drafting of the formal public report, to be published by October 14, 2019. The final report would provide a consensus opinion of the Panel, but other opinions could be voiced in individual accompanying reports.

#### ***Presentation on Ontario's Digital Strategy***

Following the discussion on procedural issues, Alex Lougheed from the Ontario Digital Service, under the Ministry of Government and Consumer Affairs, presented a deck on Ontario's Digital Strategy<sup>1</sup>. The Strategy focuses on three key pillars: (1) promoting public trust and confidence; (2) creating economic benefits; (3) enabling better, smarter, more efficient government.

The Ontario Digital Strategy was tasked in the Province's 2019 Budget, and will be carried out by the Digital and Data Task Force<sup>2</sup> in three phases:

- Phase I (completed): High level survey conducted in Spring 2019 with 740+ respondents
- Phase II: Roundtables to be conducted across the province in Summer 2019 with discussion papers being released on each of the three pillars
- Phase III: Refining recommendations on solutions through workshops and online discussions in Fall 2019.

<sup>1</sup> <https://www.ontario.ca/page/ontarios-data-strategy>

<sup>2</sup> <https://www.ontario.ca/page/ministers-digital-and-data-task-force>



There are clear cross-walks to the work going on with Quayside and Sidewalk Labs, as 83% of survey respondents said that they were not private companies did not do a good job of explaining what they do with personal data collected. All results of Ontario's consultations will be published online.

- Break -

### ***Presentation with Sidewalk Labs***

After the break, Josh Sirefman presented on the MIDP to the Panel, with a particular focus on the business proposal as outlined in Volume III. Sirefman stated that Sidewalk Labs wants sufficient returns for their business model, but is also mission driven and wants to achieve the outcomes stipulated by Waterfront Toronto in the RFQ.

He re-iterated that Sidewalk Labs' business model "in no way shape or form includes selling data," and that Volume III of the MIDP stresses the need for public control, with the public administrator closely connected to the financing strategy. On the scale issue, Sirefman presented Villiers West as a means of carrying forth innovations that are proven at Quayside, and that the inclusion of this second development was a means to make Sidewalk Toronto into a more economically viable venture.

Sirefman stated that performance payments were included as a means of recouping certain forms of upfront investment that Sidewalk Labs would have to make. In addition, the project is meant to be a catalyst for innovation and value creation, for which Sidewalk Labs believes they should have some form of compensation.

### ***Q&A with Sidewalk Labs***

Following Sirefman's presentation, a Q&A session with the Panel commenced. One Panel member asked for clarity on what gaps Sidewalk Labs intends to fill as a "**technology procurement advisor**" to which Sidewalk Labs responded that it would have to work with Waterfront Toronto to flesh out a clear, pre-determined process on the rules of engagement. Sidewalk Labs highlighted that the key is that this would all be up to the public administrator to make these determinations.

Another panel member questioned whether the **proposed profit-sharing arrangement** of 10% to the government was sufficient, given the huge amounts of megadata that Sidewalk would obtain from this project. To this, Sidewalk Labs responded that there will be as much benefits coming into the project (through knowledge sharing for example) as there would be going out in the form of megadata, making the profit-sharing proposal fair.

Panel members flagged that the **MIDP was lacking sufficient detail** and called on Sidewalk Labs to be clear when its final plan is released to the public on methodologies and roles for each of the players (i.e., the public administrator and Sidewalk Labs). Panel members also asked for clarity on the benefits of certain proposed innovations and whether they meaningfully go beyond what already exists. Sidewalk Labs responded to these points by stating that it was still too early-stage at this point to provide the level of detail that would be required.

Another Panel member called for a specific commitment (e.g., 50%) of procurement from Canadian firms, to ensure the **local economy benefits**. Sidewalk Labs responded that it is deeply committed to engaging local and Canadian firms, and that their work to date has involved 95 Canadian entities both



for-profit and non-profit. It stated, however, that it would need the ability and flexibility to engage with the right entities to achieve its goals and that is why a specific commitment has not been quantified. However, Sidewalk Labs stated that some of the needs of this project will be tied to its physical location, necessitating local involvement.

One Panel member flagged concerns that the proposed Urban Data Trust would have the authority to provide approval for a democratically-elected public sector entity to collect data within the Quayside and other Waterfront areas. The Panel member highlighted that some of this data (e.g., traffic data) is already publicly available and questioned the **legality of whether a municipal government could delegate authority over public sector data to such a Trust**. Sidewalk Labs responded that it thought it was important to make all players subject to the Trust, and that it would be important to create a framework to ensure that the same guidelines are being applied to all data collection. Ultimately, however, the approval of such a framework would be by all orders of government.

**Issues around data residency** were also raised by panel members who were concerned that even if data was stored locally, the applications and engines may not be. Sidewalk Labs responded that unless there are security or redundancy issues, they are committed to storing everything locally. They also assured the Panel that many of the companies who currently own data residency infrastructure are heading towards “dual redundancy” because of its ability to increase delivery speed to the customer, making some of these concerns moot.

Panel members flagged concerns around whether the proposal would allow Sidewalk Labs and Alphabet to have a **data monopoly, despite the MIDP’s commitments to openness**. Sidewalk Labs’ response was to assure the Panel that the access to data would remain open by default, even if a regulatory body such as the proposed Urban Data Trust governs access to different players. Sidewalk Labs also drew the distinction between two issues – the argument against vendor lock-in by Sidewalk Labs or other vendors versus the governance of data access. Sidewalk Labs distanced itself from other Alphabet subsidiaries, and re-affirmed that it is under no obligation to share data with them or work with them, but may consider it just as they would other potential collaborators where opportunities could be leveraged.

The next DSAP meeting will convene on September 12, 2019.



## **Waterfront Toronto Digital Strategy Advisory Panel (DSAP) #10**

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- **Eugene Kim**, Sidewalk Labs
- **Chelsey Colbert**, Sidewalk Labs
- **Alyssa Harvey-Dawson**, Sidewalk Labs

### Notes

- 2:35-2:50 on Ontario digital strategy added to agenda
- Management report – presented by Kristina Verner
  - Presentation at next meeting on Urban Ideas Compendium – opportunity to contribute
  - Nicole to speak on consultation

### **Public consultations:**

- NTR used to organize all outreach activities
- Well-received so far
- 650 people connected in person
- Broad strokes on what we are hearing



1. 12 acres could work, but more than that is overreach. Innovation enthusiasm is tempered by scale. Proposal doesn't specify why scale is needed.
  2. Innovations are well-received – openness to using digital and technology for innovation. But people want to understand
  3. Public oversight and governance is essential – frequently SIDEWALK LABS and Alphabet not particularly well trusted. Want them to put in
  4. Some are receptive to data collection if overseen by regulator, if regulator has power to enforce. Others don't believe in data collection – not enough info in MIDP on this proposal.
  5. IP
  6. Consistent feedback that MIDP is difficult to navigate, difficult to identify what is being proposed to being implemented. Not clear how citizens will benefit.
  7. Many support further consultations so they have more time to digest what is in MIDP.
  8. Some question WT's ability to be neutral given past working relationship with SIDEWALK LABS.
- Normal for people to be unconditionally supportive, and vice versa, and some
  - 10-20% at every meeting say that it is their first time in attendance
  - Draft summary of report will be shared with all participants – end of next week. Participants will have a week to review. (they don't write things down verbatim – but they want to make sure participants understand). Draft stage will be public.
  - Public wanted MIDP to be narrowed down, concise and shorter so people can get their head around it. Difficult to understand how volumes connect to each other. Perhaps integration would have been most useful.

#### **Governance Committee/WG:**

- Parts of the code of conduct
- Duty to act in the best interest of WT – a lot of concern so it was taken out and amended/softened. But best interest of WT doesn't mean "commercial interest" – it's more about achieving WT's mandate. We didn't want to set out a specific reference to public interest because it opens up many other questions about what constitutes public interest.
- Also only speaks to activities that are undertaken with respect to your role as a panelist – not necessarily outside activities.
- Panel members not making public comments unless authorized by the Chair – we didn't want to disempower Chair by leaving that language out... it's not lang that was specific to DSAP
- Geist opposes it...
- Charles: difference between individual opinions and purporting to represent the Panel as a whole.
- 5.1, 5.2 and 5.3 – disclaimer that your views are your own.
- Gomez: No Code of Conduct is perfect. Given timelines we may not get to a perfect draft.
- 5.1 talks about speaking about the panel... Chair determines blanket messaging on it.
- Don't need second sentence – people are free to speak about the panel as long as they make it clear that it's just their view.
- As long as it is in good faith, no comment is prohibited...even if it is
- Using 'defame' makes it a legal issue... whereas these are just public panel's code of ethics.

#### **Evaluation Criteria Working Group**

- July 3 – Oct 14 (Final Report)
- Phase I: Preliminary commentary on the MIDP



- Second phase: formal public report – consensus report, but also minority opinions. Panel could also produce individual reports on it.
- Subtopic leads within a working group.
- Want general approval so that they can move forward on Phase I
- Need to be clear that there is no date discussion with SIDEWALK LABS – so September date
- If there are MIDP changes, timing is TBD and exact nature is also up in the air but wouldn't be another 1500 page document. More like an Appendix or something.
- Reynolds: Section on financials on digital innovations perhaps should be included. There is a mention in the MIDP about software developments being provided “at cost” which may be an issue
- There might be an opportunity within a closed session to go through the full criteria list.
- August 16<sup>th</sup> is when Preliminary Commentary would be shared with WT and SIDEWALK LABS
- August 2<sup>nd</sup> – comments by panel members submitted

#### **Presentation by Ontario on Data Strategy<sup>1</sup> (2:15pm)**

- Alex Loughheed Ontario Digital Services supporting Minister of Consumer Affairs
- Tasked in Budget 2019. Ongoing consultations to inform this.
- Provincial government priorities – want to ensure
- Phase I: High level survey in the spring – 740+ respondents
- Phase II: Roundtables across province with discussion papers being released on each of the three pillars
- Phase III: refining recommendations through workshops and online
- Task Force members listed online.
- 83% response of no for businesses generally do a good job of explaining what they plan to do with your data (typo in slide)
- Will also publish results online on their website
- Relationship between Ontario's data strategy and work ongoing at WT and Quayside.

**- Break -**

#### **Presentation with SIDEWALK LABS (focus on business proposal)**

- Josh presents MIDP in summary
- Plans in Volume I are response to RFQ priorities
- Identified second project – VW – carry forth the innovations that are proved at Quayside
- Volume II – innovations encompass many pillars and priorities. Privacy and data governance framework.
- Volume III – public control is key. Public administrator should be connected to the financing strategy.
- SIDEWALK LABS wants sufficient returns for their business model, but are also mission driven – want to achieve the outcomes put out by WT
- Business model in no way shape or form includes selling data
- Developing real estate and advanced systems
- Including VW was because it brings the returns into a more economical venture
- Performance payments: Certain forms of upfront investment – no other way to recoup those investments; plus this project as a catalyst – value creation that there would be some form of compensation for.

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<sup>1</sup> <https://www.ontario.ca/page/ontarios-data-strategy>



- Public sector actions that are needed (slide 124)

#### **Q&A on SIDEWALK LABS Presentation (3:20pm)**

- Charles Finley: As a plan – would like more detail on how it works, on governance, financing, etc. For example, what does technology procurement advisor mean? Who decides what the gaps are that SIDEWALK LABS would fill?
  - We will have to work with WT to flesh out the process. There would be a clear pre-determined process that would NOT be determined by SIDEWALK LABS.
  - In Volume III, procurement principles, rules of engagement would be set up by public administrator. What's key: up to the administrator to make all these determinations in our plan.
- CF second question: Traditional way in which we design our infrastructure is changing. Can you speak more to how you are going to bring all these different perspectives together?
  - Modularity with smaller modules that are interoperable and are swappable.
  - Common design thinking policies that they want to bring to urban development
- CF: When final plan is released, would be useful to release it to the public to explain methodologies, what the roles are for the public administrator and SIDEWALK LABS.
  - JS: we'd be delighted to talk more about that.
- You've talked a fair bit about acting as a catalyst. What about moving from catalyst to commitment. There are strong statements of intent for Canadian firms. But maybe it should go a step further – specific commitment. Like a 50% commitment for Canadian procurement.
  - JS: we're deeply committed to this idea. To work to date, we have worked with 95 Canadian entities from across the for-profit spectrum.
  - We need the ability and flexibility to engage with who we need to..
- Struggling with benefits of some of the innovations – nothing that particularly goes beyond what technology already exists, like for example 5G innovation.
  - Innovation from
  - SuperPon for example
  - Community benefits to a software defined networks
  - Nothing falls apart
  - SDN benefit unique: IOTC sensors on sewer pipes – place them on separate software defined networks so you can yank them off – prevents rogue actors
  - None of this says 5G can't happen – very little we need to do to catalyze 5G
- Teresa: Board of trustees approval for a democratically-elected public sector body to collect data... is concerning. What about traffic data, which is already public? Is it even legal for municipal government to delegate authority over public sector data to an urban data trust.
  - During our process we thought it was important to make everybody go through public data trust, trying to create a framework that the same guidelines are being applied to all data collection.
  - This has to be approved by all orders of government.
  - Even the collection of non-personal or aggregate data if you had people not understanding what the rules of the road are
- AC: MIDP is relatively thin in its details... in particular where are all the sensors going to be for example?
  - What is in the MIDP is the level of fidelity that we have (e.g., what could be done with Koala mounts)
  - We are early stages still



- AC: where does the digital element and data capture proposal becomes visible. Insufficient detail in MIDP for us to make the assessment in a reasonably comprehensive fashion.
  - PR: what would help? A rendering or model?
- DR: high level commitments to openness and to not having a data monopoly –
  - Access is still there, might just be more gated by a regulatory body (e.g. UDD). It's not that all open data is currently publicly available in every situation.
  - Even if the data can't be made open in all cases. Different argument between vendor lock-in and openness by default.
- DR: parts of the MIDP talk about data residency... but do we imagine those engines being stored in Canada, including applications?
  - Unless there is security or redundancy issues.
  - We are committed to keeping it local – including the engines etc.
  - Redundancy issue is
- AA: you are going to gain a huge amount of megadata from this project. IP profit sharing 10% back to WT?
  - As much learning will travel into this project as much as out of it.
- KG: How did you arrive at those measures – literature? Will you be providing any documentation on business development
  - We scoured for models to use.
  - In the absence of comparable examples – we arrived at the percentage and the duration. Open to dialogue on this.
  - We added 10 years from the second sale because we don't want to have negative incentives to sell at 9 years.
- DD: Validation criteria and who decides the pivot points?
  - We need to develop a design and development process to derisk, for example.
  - We're now working on everything – picked 3 things we can derisk first. If we do not derisk the right things fast enough, we are taking on the financial burden
  - Setting up testbed facilities allowed us to derisk the curbside mobility proposal
- PR: Patent pledge discussion – would this be the anti-thesis to Canadian SME involvement.
  - KV: Notion was more on the reciprocity of the patent pledge.
  - Our intent was not to give a patent pledge. We don't require reciprocity. We are saying that it could go away if they asserted a patent pledge against us. Not unusual. It means that it could go away if you sue us, but it doesn't mean you can't.
- PR: Openness
  - We are aware of ISO standard but because of the level of
- MG: SuperPON. A lot of the talk about accessibility to this network. Who gets to use this? Just Quayside residents or all of City?
  - We're just talking about working with TelCos and hoping they implement it in Quayside specifically but hopefully would expand
  - It depends on the partner(s) we work with on the SDN
- MG A lot of emphasis on prioritizing local technology – how do you reconcile local with best technology for example?
  - The district we are building is local even if the web isn't. Tied to a physical location
- MG Data residency – best efforts but not a commitment to keep local.
  - We are not experts on this. But we know it isn't easy. It has to be built on existing technologies (for data portability). But then you're also at the mercy of those companies.



But those companies are heading towards dual redundancy, not because of data residency, but speed to customer.

- Chantal: most governments in Canada put in procurement agreements to keep data in Canada
  - If it is in the agreement, we will comply with that. Especially if it is sensitive (e.g. health data). This will become a moot conversation by the time we develop and build.
- Chantal Bernier: discussion of data collection and privacy legislation in Canada
- CF: Is there a minimum viable plan?
  - We are asking this ourselves. I don't have an answer right now.
  - We proposed these things fully knowing that there would be alternative paths to achieving our outcomes. It's a bit of a dynamic question.
- AC: relationship between SIDEWALK LABS and other Alphabet subsidiaries which are based on monetizing personal information. How will you relate to other Alphabet subsidiaries? What others will play a part in Quayside?
  - We have no obligation or requirement to utilize other subsidiaries.
  - Anything we do will be subject to same process and principles and governance and data as others
  - Opportunities to leverage other subsidiaries: It could be possible for some collaboration – like Google real estate function, but there is nothing we have planned at this moment.
- MW: List of services in Digital Innovation chapter. Why are there some missing?
  - The missing ones are what we imagine third parties would be doing.





**WATERFRONT**Toronto

# Digital Strategy Advisory Panel - Meeting # 10

MONDAY, JULY 22, 2019 FROM 01:00PM TO 5:00PM

WATERFRONT TORONTO

13TH FLOOR, WATERPARK PLACE

20 BAY STREET, SUITE 1310

TORONTO, ON, M5J 2N8





## Meeting Book - Digital Strategy Advisory Panel - Meeting # 10

### Agenda

1:00 - 1:05	1. Opening Session		
	a. Call to Order		M. Geist
	b. Approval of Agenda	Approval	All
	Agenda - Page 4		
	c. Declarations of Conflict of Interest	Declaration	All
	d. Approval of Previous Minutes	Approval	All
	Draft minutes of the April 1, 2019 Meeting - Page 5		
1:05 - 1:10	2. Chair's Remarks		M. Geist
1:10 - 1:35	3. Management Report	Information	K. Verner
	Cover Sheet - Page 8		
	a - Management Report Deck - Page 9		
	b - SWL Reconciliation - Page 13		
	c - Consultation Report - Page 25		
	d - Final Draft Digital Principles - Page 32		
	e - Note to Reader - Digital excerpts - Page 35		
	f - Steve Diamond open letter - Page 48		
	g - Consultation Discussion Guide - Page 50		
	h - Consultation Board Content - Page 54		
1:35 – 2:00	4. Governance Working Group	Information & Discussion	
	Cover Sheet - Page 74		
	Panel Code of Conduct - redline - Page 75		
2:00 –	5. Criteria Working Group	Information &	



2:45

Cover Sheet - Page 93

Discussion

Proposed DSAP Review Process - Page 94

2:45 –

BREAK

3:00

3:00 –

6. Discussion with Sidewalk (SWL) Labs

4:45

a. Sidewalk Labs presentation on business model (20 minutes)

b. Open discussion of MIDP (85 min)

Information and Discussion

J. Sirefman,  
A. Harvey-Dawson,  
P. Ramaswami  
and J. Lu

Cover Sheet - Page 100

SWL Draft Deck - Page 101



## WATERFRONT TORONTO DIGITAL STRATEGY ADVISORY PANEL MEETING 10 - AGENDA

July 22, 2019 - 1:00pm - 5:00pm  
Waterfront Toronto Boardroom  
20 Bay Street, Suite 1310 Toronto, Ontario M5J 2N8

1:00 - 1:05	<b>1. Opening Session</b> <ul style="list-style-type: none"> <li>a. Call to Order</li> <li>b. Approval of Agenda</li> <li>c. Declarations of Conflict of Interest</li> <li>d. Approval of Previous Minutes <ul style="list-style-type: none"> <li>i. April 1, 2019</li> </ul> </li> </ul>	Approval  Approval	M. Geist All All All
1:05 - 1:10	<b>2. Chair's Remarks</b>		M. Geist
1:10 - 1:35	<b>3. Management Report</b>	Information	K. Verner
1:35 - 2:00	<b>4. Governance Working Group</b>	Information & Discussion	
2:00 - 2:45	<b>5. Criteria Working Group</b>	Information & Discussion	
2:45 - 3:00	<b>BREAK</b>		
3:00 - 4:45	<b>6. Discussion with Sidewalk Labs</b> <ul style="list-style-type: none"> <li>a. Sidewalk Labs presentation on business model (20 minutes)</li> <li>b. Open discussion of MIDP (85 min)</li> </ul>	Information and Discussion	J. Sirefman A. Harvey-Dawson P. Ramaswami J. Lu
4:45 - 5:00	<b>7. Other Business</b>	Information & Discussion	All
5:00	<b>8. Adjournment</b>	Approval	All



**WATERFRONT TORONTO  
DIGITAL STRATEGY ADVISORY PANEL  
MEETING #9 - MINUTES**

April 1, 2019 - 11:00am – 5:00pm

Video Archive of Meeting: <https://www.youtube.com/watch?v=oXVA5l-cNIc>

PANELISTS:	Michael Geist (chair)	Charles Finley (co-chair)
	Alaina Alston	Dave Dame
	Diane Reynolds	Jutta Treviranus
	Karen Gomez	Kevin Tuer
	Khaled El-Emam	Kurtis McBride
	Mark Wilson	Pamela Robinson
	Teresa Scassa	

REGRETS: Andrew Clement  
Carlo Ratti

**WATERFRONT TORONTO MANAGEMENT & EXTERNAL LEGAL:**

Kristina Verner	Ian Beverly
Vance Lockton	Barry Reiter
Chantal Bernier	
George Takach	

GUESTS:	Craig Nevill-Manning	Sidewalk Labs
	Alyssa Harvey Dawson	Sidewalk Labs
	Chelsey Colbert	Sidewalk Labs

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**1a. CALL TO ORDER**

Being a quorum of Panelists present, the meeting was called to order at 11:05 a.m. Michael Geist, Chairman of the Panel, presided as Chairman of the meeting.

**1b. APPROVAL OF AGENDA**

Michael Geist noted that there was an addition to the agenda in the closed session, regarding the discussion of an HR matter. On a motion made by Mark Wilson, seconded by Alaina Aston, it was resolved to approve the agenda as amended for the meeting. Motion Carried.

**1c. DECLARATIONS OF CONFLICT OF INTEREST**

No new conflicts of interest were registered.



#### **1d. APPROVAL OF PREVIOUS MINUTES**

On a motion made by Pamela Robinson, seconded by Charles Finley, it was resolved to approve the minutes from the meeting on February 14, 2019. Motion Carried.

#### **2. CHAIR'S REMARKS**

Michael. Geist provided opening remarks, including welcoming three new panelists (Karen Gomez; Khaled El-Emam; Diane Reynolds); introductions were made by each. Waterfront Toronto Manager of Digital Governance (Vance Lockton) was also introduced.

#### **3. MANAGEMENT REPORT**

**Working Group Meetings** - DSAP Panel Governance and Nomination working group (March 15, 2019) and Architecture working group (March 25, 2019) have both met; Evaluation Criteria working group will meet soon (April 12, 2019, with KPMG) to go through more detailed evaluation criteria set forth for the MIDP.

**Civic Labs** - Waterfront Toronto hosted two Civic Labs sessions, the first on the notion of civic data trusts and the second on IP and data ownership. Both were well attended, with 50-60 in attendance and 250-400 people having viewed the livestream (either live or after the session).

**Info Sheets** - Digital literacy campaign has continued.

**External Legal Counsel** - An additional external legal Counsel (Tim Banks, nNovation) has been brought on to help with components of MIDP related to Intellectual Property.

**Public Consultation on Digital Issues** - Anticipated for mid-May 2019.

#### **4. WORKING GROUP REPORTS**

**Panel Governance and Nomination:** Working group members (Pamela Robinson, Mark Wilson, Michael Geist) and Waterfront Toronto staff drafted and circulated notice for new panelists; subsequently met to evaluate applicants. Members were highly aligned in their choices of preferred applicants. Members opted to leave one seat on the panel open, in order to allow flexibility to bring on a new perspective/skill-set should the need arise. Overall, the working group members were pleased with how the process worked.

**Architecture:** Working group members (Kurtis McBride, Kevin Tuer, Mark Wilson) and Waterfront Toronto staff and external legal counsel had an initial meeting. Some high-level architecture models and considerations were discussed.

Panelists inquired about the intended outcome for this working group - whether there would be a single proposed architecture, multiple options, etc. It was suggested that a summary of the discussion could be written up and distributed. Attendees agreed that the principles underlying



an architecture - rather than the architecture itself - would be most helpful to the group to inform its evaluation of the MIDP.

**Evaluation Criteria:** A session is scheduled for April 12 with KPMG and the Panel working group.

## **5. Role of DSAP in the MIDP Evaluation Process**

Kristina Verner described the role of the DSAP in the MIDP Evaluation Process - bringing forward what had been discussed in closed session in the prior meeting and presented before the Waterfront Toronto Board and its government partners.

The Panel will be providing comments on the digital innovation pillar and the intellectual property considerations of the MIDP. For the digital innovation pillar, the DSAP will act as Waterfront Toronto's subject matter expert. This will be supported by the efforts of the working groups (the Architecture working group in particular).

DSAP members will receive a confidential briefing on the preliminary draft of the Digital Innovation chapter, and have the opportunity to provide high-level feedback to Waterfront Toronto and Sidewalk Labs. This will be the only pre-release opportunity to review the chapter.

In the public draft of the MIDP, information relevant to the DSAP may also appear in other chapters; we have asked that DSAP be provided a mapping of this material. A request has also been made to Sidewalk Labs to provide a more robust technical architecture appendix for reference.

DSAP will not provide a scored review of the MIDP, but will provide extensive comment that will form the basis of a consensus report. There is an opportunity to also put forward a minority report. These reports will be made public as part of the overall commitment to openness and transparency.

## **5. MOTION TO GO INTO CLOSED SESSION**

On a motion made by Alaina Aston, seconded by Charles Finley, the Panel moved into closed session to discuss an HR matter, as well as the draft MIDP "Digital Innovation" chapter.

## **6. MOTION TO GO INTO OPEN SESSION**

On a motion made by Mark Wilson, seconded by Charles Finley, the Panel moved into open session. Motion carried.

## **7. ADJOURNMENT**

On a motion made by Kevin Tuer, seconded by Charles Finley, and carried unanimously, it was agreed that there was no further business of the Panel to transact, the meeting was closed at 4:58 p.m.



<b>Agenda Item</b>	3 - Management Report
<b>Purpose</b>	Information
<b>Key Message</b>	<p>Waterfront Toronto has undertaken multiple activities since the last DSAP meeting (April 1), including receipt the Master Innovation Development Plan (MIDP), initiation our public consultation process on that document, and development of a set of Draft Digital Principles.</p> <p>To orient Panelists, we have included key documents (many of which have previously been distributed), including:</p> <ul style="list-style-type: none"> <li>• DSAP's comments on the draft Digital Innovation chapter, and Sidewalk Labs' response and reconciliation of changes made in the MIDP.</li> <li>• A report on Waterfront's May 22 Public Meeting on Digital Neighbourhoods and Digital Literacy</li> <li>• An open letter from Steve Diamond (Chair of Waterfront Toronto's Board) on the MIDP</li> <li>• Excerpts from Waterfront Toronto's Note to Reader</li> <li>• A discussion guide for Waterfront Toronto's ongoing public consultation.</li> <li>• The Draft Digital Principles.</li> </ul>
<b>Areas of note/ Key issues</b>	
<b>Expected Outcome</b>	<p>The Panel will have an understanding of key Waterfront Toronto activities which have occurred since the April 1, 2019 DSAP meeting, and access to associated documents. (Note that most of these documents have been provided previously)</p>
<b>Key Takeaways/ Next Steps</b>	<p>The panel will receive the consultation report once it becomes available from the first round of consultations that are being conducted in July 2019.</p>



June 22, 2019

# Management Report

Kristina Verner, Vice President, Innovation, Sustainability & Prosperity

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# Developments since April 1, 2019

## **DSAP feedback on Draft Digital Innovation MIDP Chapter**

- Feedback provided to Sidewalk – April 12, 2019
- Pre-release response – April 27, 2019; full reconciliation – June 28, 2019 (Document attached)

## **Public Meeting on Digital Neighbourhoods and Digital Literacy – April 22, 2019**

- Included consultation on Waterfront Toronto Draft Digital Principles (Principles & Report attached)

## **Master Innovation and Development Plan**

- Receipt: June 17, 2019; Public Release: June 24, 2019
- Accompanied by Note to Reader (attached); open letter from Steve Diamond (attached)
- Public Consultations (Discussion Guide and Board Content attached)
- 3 Public Meetings have occurred, 1 to come (July 23 – Chestnut Conference Centre)
- 6 Library Pop-ups have taken place, 1 to come (July 25 – Toronto Reference Library)

## **Urban Ideas Compendium**

- Invitation to contribute

## **Working Group Meetings**

- Governance - April 29
- Architecture – None
- Evaluation Criteria – April 12; June 6; July 3



# Thank you.

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## Digital Strategy Advsisory Panel: Detailed reconciliation of DSAP comments on the Digital Innovation Chapter draft

Comment	Details of Reconciliation / Response	Page Reference(s)
<p><b>Economic Benefits</b></p> <p>Although the Digital Innovation section of the MIDP states a number of good intentions including giving 'priority to technology that is local to Toronto, Ontario, or Canada' and names a number of opportunities, there are no specific economic development commitments. A separate report and section is referenced that claims 18,000 jobs in urban innovation. Firstly, jobs is an insufficient measure as the goal must be to create or grow Toronto, Ontario, Canadian firms that are global leaders as well as growing employment by encouraging the location of foreign firms in Toronto. Secondly, an economic projection is not an enforceable commitment.</p> <p>The Economic Development Section must contain specific commitments in this regard much as the Federal government requires Industrial and Economic Benefit in Defence procurement <a href="http://www.ic.gc.ca/eic/site/086.nsf/eng/home">http://www.ic.gc.ca/eic/site/086.nsf/eng/home</a></p> <p>To make any commitment credible, Sidewalk Labs needs to announce specific partnerships for at least some launch services with Canadian firms including Toronto based firms, prior to approval of the MIDP.</p>	<p>Economic benefits are described in further detail in Volume 1, Chapter 3, with an overview provided on pages 426 and 427. We included an overview of urbanMetrics's approach and assumptions is baselining and estimating incremental economic impact on p.424, and descibe specific factors considered throughout the chapter.</p> <p>Thank you for the suggestion to identify specific commitments similar to how it is done by the federal government for defence procurement. We'll consider this feedback as the process for the draft proposal proceeds.</p> <p>Specific commitments that relate to economic development include an Alphabet commitment to establish a new Canadian Headquarters for Google on Villiers Island as part of an agreed-upon transaction, and \$10M in seed funding to catalyze the creation of an Urban Innovation Institute, accompanied by a commitment to facilitate the Institute's long term growth. The MIDP also proposes further planning and development in the River District beyond Quayside and Villiers West, accompanied by additional specific commitments including: the creation of a tall timber factory with key partners, optional stapled financing for advanced systems, \$10M for a venture fund focused on Canadian startups , payment to Waterfront Toronto of shared upside value (above an agreed threshold) from Quayside, and entering a first-of-its-kind profit-sharing agreement in which the public sector would receive a portion of the profits arising from certain technologies first deployed at scale in the project area.</p> <p>We haven't established any partnerships that we can announce yet.</p>	<p>Volume 1, pages 424, 426 - 427</p> <p>Volume 1, pages 438 - 443</p> <p>Volume 1, pages 488 - 489</p> <p>Volume 3, pages 32 - 33</p> <p>Volume 3, pages 126 - 127</p>



## Digital Strategy Advsisory Panel: Detailed reconciliation of DSAP comments on the Digital Innovation Chapter draft

Comment	Details of Reconciliation / Response	Page Reference(s)
<p><b>General Comment</b></p> <p>I am happy to share the marked up document I have created with embedded comments but I would say generally I would like to see the following.</p> <p>1. A better alignment with this chapter with the overall goals of the project. I realize this is in draft form and is disconnected with the rest of the MIDP, but I think the digital layer is a core of this project, and it would be best to see the proposed frameworks, technology proposals and project proposals connected better with the overall social and economic goals of the project.</p> <p>2. The chapter on Digital Innovation seems generally limited in its scope. I would like to see more attention to the "user", i.e. the citizen or resident, in terms of both consumption of the data and services, but also potential "production", i.e. altering the experience themselves, working with data themselves, building apps, or what the greater civic engagement model is for the digital layer. The plan should include specific proposals using new technologies to make sure the public, and the community are directly involved with the project. I would also expect to see a better sense of the plan from an experience design perspective, from the perspective of the prospective citizen, resident, business owner, traveller/commuter at Quayside. If this is supposed to be next generation planning and design, and we are leveraging approaches developed through design thinking and agile development, perhaps the plan can start with problem or opportunity identification, demonstrate user scenarios, explore prototypes, and take us through the "experience" of the proposal as being part of the plan itself. I realize the written plan is likely the necessary and core artifact of the MIDP, but it might help the public visualize what is being proposed using some of the tools we now have at hand, such as AR/VR visualizations, allowing the public to access and change parameters in parametric design models etc. There is an entire digital layer of how this project will be designed, created, and shared that is missing from this chapter on digital innovation.</p> <p>3. A better understanding of the "agency or governance model behind the plan, i.e. who does what. This is unique in that is a planning document, but that the private sector partner is also proposing to create some of the planning frameworks (from a digital perspective) technologies and hardware that accompany it. I think we need a better understanding of the governance regime underlying the hardware, the technology stack, the code etc as well as the data alone. There are many instances where Sidewalk as the private vendor is implies it has the agency (hiring third party companies) etc and I don't think the engagement model has been properly mapped out. Perhaps it is in other sections that we have not seen.</p> <p>4. There are multiple references to the scope of the project needing to move beyond the 12 acre site. The project as scoped is 12 acres, and though I can see how urban technology would work better at a larger scale, there needs to be a mechanism, and perhaps this is for Waterfront Toronto to specify, for the public to understand the implications of the application of this plan beyond Quayside. I wouldn't want the assumption to be made by the multiple references made here, that this scope will necessarily be extended beyond Quayside without an intentional and public decision made to do so. The flip side of this is that we don't want Quayside to be a walled garden of non-scaleable technologies and infrastructure, a kind of "Ontario Place" or "World Fair" for the 21st century, so we must find the happy medium of scalability, with intention, and with public governance in place.</p> <p>5. The plans should not just outline the new technologies being proposed (though I was happy to see the specificity here) but also something about how those technologies will be sourced, evaluated, maintained and secured. The sustaining, maintenance and upgrading of urban technologies are the largest expense over the lifetime of any asset. I would like to see more here on how will be addressed and by whom.</p> <p>6. The chapter should carefully set out dependencies on the success of the proposal, i.e. any legislative limitations, the creation of a the 'urban data collective", that are either outside the scope of Sidewalk Labs, or Waterfront Toronto, along with interim solutions or approaches that might allow the project to move forward where the time frame for these dependencies to be resolved might be prolonged.</p>	<p>1. We added cross-references throughout the MIDP to better draw out the connections between the digital layer, digital governance proposal, the social and economic goals of the project, and the rest of the proposal.</p> <p>2. In terms of engaging the public with the MIDP content, we designed a digital experience to help people engage with the MIDP content. Additionally, we've implemented prototypes of the modular pavers, building raincoats, and most recently, the stoa at our 307 location so the public can engage with them directly. We have also created a 1:40 scale conceptual model which integrates digital elements to help people understand innovations such as the advanced power grid and logistics hub, and how they support project objectives such as climate neutral development. In terms of enabling people become producers with the urban data generated, and not just consumers - we have proposed a partnership with the public library to improve digital literacy, the creation of a Tech Bar to provide community members with small-group or one-on-one assistance with digital tools and for those who require additional digital supports, Sidewalk Labs plans to provide free-to-use devices, tech support staff, and digital literacy programming in the Civic Assembly and the Care Collective. Additionally, to further encourage the development of truly inclusive tools, Sidewalk Labs has funded an inclusive usability testing program founded by Code for Canada called GRIT Toronto, is working with local communities to develop a launch service aimed at participation in community decisions called Collab, and supporting Toronto-based service providers to develop technology solutions.</p> <p>3. Privacy and Data governance and supporting digital infrastructure is laid out in Volume 2. it is proposed that Sidewalk Labs play a role as lead developer, and optionally provide financing, for advanced systems critical to the success of Quayside and Villiers West and to the achievement of Waterfront Toronto's priority outcomes, including the digital communications network. To implement these systems, we would identify or partner with experienced third-party operators wherever possible. Sidewalk Labs would also provide technical advisory support to the public administrator and Waterfront Toronto's broadband internet partner (procured separately by the public administrator) for development of a Super-PON network to achieve the objectives of high-speed ubiquitous internet connectivity in accordance with specifications in the IDSG.</p> <p>4. Thank you for this comment. We've tried to make this clear in the MIDP as well as in the digital version of the MIDP on our website - for example, the introduction clearly distinguishes the 2 proposed phases, and Vol 1 divides proposals for Quayside and the River District into two separate chapters.</p> <p>5. Thank you for this suggestion. An overview of the approach to sourcing and evaluation of technology is included in Volume 3.</p> <p>6. Dependencies for the proposal to succeed (e.g. to achieve the project's priority outcomes) is discussed in in detail in Volume 3. For example, pages 18 - 46 discuss the need for scale to achieve the outcomes, while chapter 1 discusses dependencies on strong public-sector oversight and a regulatory framework to enable new advances.</p>	<p>Volume O, page 112</p> <p>Volume 2, page 457</p> <p>Volume 2, page 393 Volume 2, page 443 Volume 2, page 446 Volume 2, page 382 Volume 2, pages 376-453</p> <p>Volume 3, page 84</p> <p>Volume 3, page 118</p> <p>Volume 3, pages 120 - 122</p> <p>Volume 3, pages 18 - 46 Volume 3, pages 50 - 81</p>



## Digital Strategy Advsisory Panel: Detailed reconciliation of DSAP comments on the Digital Innovation Chapter draft

Comment	Details of Reconciliation / Response	Page Reference(s)
<From DSAP meeting> How can it be ensured that new operational requirements in Quayside - such as Koala mounts or onerous conditions imposed by the Urban Data Collective - don't create an unintended competitive barrier that will deter SMEs from participating? Do you have concerns about the privacy governance layer becoming a point of friction that limits innovation?	<p>Thank you for your questions. We plan for the Koala mount to have open specifications and a non-proprietary interface, since the objective is for it to serve as a platform for other urban innovations. Currently, the cost of installation is very high and Koala connectors would significantly lower that cost, which would help make other innovations commercially feasible. For clarity, once the public administrator / management entities have purchased Koala mounts, they would decide what devices may be mounted on it.</p> <p>Regarding the Urban Data Trust process: we acknowledge this challenge, and in the early stages of identifying and developing ways to streamline the process for conducting Responsible Data Use Assessment for common, well-defined urban data collection and use cases in order to reduce the burden for SMEs. This is also why we are proposed phased implementation, in which the first phase is focused on quickly gaining experience working through use cases to work toward a long-term solution.</p> <p>For the privacy governance layer and innovation: we've created a proposal that we believe strikes a balance between ensuring responsible data use and enabling innovation. We acknowledge that experience may yield learnings which may help us refine that balance, so we propose phased implementation. We are also considering how the process might be streamlined for common use cases. Ultimately, we recognize that it is up to decision makers to decide whether the proposal achieves the right balance between these objectives.</p>	
Who will be responsible for determining public policy for, or controlling, public assets such as traffic lights, stormwater management, etc.? It will be important to be very clear about public control and accountability for these assets. In general, the roles and responsibilities of public and private actors should be more crisp and clearly defined.	A key principle in the proposal is strong public oversight - no urban project of sufficient scope or complexity can succeed without meaningful public oversight and an administrator capable of moving it forward. This is especially true for projects bringing new ideas and approaches to bear. Respective roles and responsibilities are summarized in Volume 3 at page 218. Public administration would maintain clear accountability and oversight, establish the policy objectives and frameworks, and set appropriate policy, regulation and legislation (summarized in Volume 3 pages 224 - 226 and 230 - 232).	<p>Volume 3, page 27 Volume 3 at page 218</p> <p>Vol 3 page 224-226 and 230-232</p>
<From DSAP meeting> Broadly, what is the maintenance model for these technologies? What is Sidewalk's obligation if the technology (or business model) fails? This will be important, in the wake of stories such as the Google Fibre / Louisville saga.	The principal Volume 3 discussion of the entities is at pages 68-70, with certain additional details provided in the supplemental tables on pages 222-223. Every management entity, as spelled out in the pages referenced above, has a dedicated source of revenue that is intended to provide funding for the sustained operation of the systems. Chapter 6 of Volume 3 addresses risk mitigation	Volume 3, pages 68 - 70, pages 222 - 223
<From DSAP meeting> Will Sidewalk be defining which elements are only financially feasible, and/or it will only implement, at a scale beyond Quayside?	This would be the subject of negotiation with Waterfront Toronto	
<From DSAP meeting> In general, it would be helpful to provide additional examples which compare the proposals to existing, publicly known entities/technologies. For instance, proposing an external legislative body like the UDC (or IDEA district) would be strengthened through reference to local examples, such as the Bentway management authority.	Thank you for this comment. We tried to provide local examples as appropriate - for example, we referenced the Bentway Conservancy in discussing the Open Space Alliance in Volume 2. However, we were unable to identify a local example analogous to the Urban Data Trust. We will consider this feedback moving forward, and aim to provide local examples where available.	Volume 2, page 180
<b>The Vision</b> I don't think Sidewalk's role is to establish the new standard but enable or include in the plan that a public framework for responsible collection and use of data is required in order.	We acknowledge it is the role of the decision makers to decide on a framework for the responsible collection of and use of urban data.	
Perhaps add something about the end vision, in terms of addressing a new kind of experience of our cities, a new urbanity enabled by the connected, networked, data-driven environments of urban technology	The overall vision, priority outcomes, and the proposed innovations to support achieving the vision and outcomes is summarized in the Overview Volume, which begins by detailing how the historic context of the Waterfront, the RFP, and the engagement process provided the foundation for developing a vision deeply rooted in local context. It details the priority outcomes, the plans, and the commitments to diversity, equity and inclusion in all facets of the planning and implementation. Finally, it concludes with a summary of the innovation partnership, the funding partnership, and the financial terms.	
I trust early in the MIDP there are clear and crisp definitions of Quayside, Sidewalk Labs, Sidewalk Toronto, Waterfront Toronto. If not place them in this introductory section. This touches on the larger questions I have with the document about differentiating the agency to write the plan, to approve, to govern, to execute, to develop and to own. It is a unique situation in urban development where the planners are planning and proposing they execute and where private sector entities are proposing public sector or sector-independent governance frameworks and standards.	Quayside's historical context and geography are discussed in detail in Volume 1, and the term is used consistently throughout the MIDP and consistent with other documents. The legal entities of Sidewalk Toronto, Sidewalk Labs and Waterfront Toronto are discussed in other documents, such as the Plan Development Agreement	Volume 1, Pages 26 - 37



## Digital Strategy Advsisory Panel: Detailed reconciliation of DSAP comments on the Digital Innovation Chapter draft

Comment	Details of Reconciliation / Response	Page Reference(s)
The goals are framed in an introductory paragraph on page 1 as improving mobility, affordability, sustainability, and economic opportunity. Are they the only goals - what about diversity, urbanity, spontaneity, creativity? Or, if the project is proposing specific aspirations around digital governance or standard setting perhaps be explicit about that.	This is discussed in Volume O at pages 164-165, which discuss Waterfront Toronto's priority outcomes of job creation and economic development, sustainability and climate-positive development, housing affordability, new mobility (including an emphasis on accessibility), and urban innovation (including robust data privacy and digital governance).	Volume O, pages 164-165
Another goal is stated on the first page as "It is also essential for catalyzing an ecosystem of new services and solutions by Canadian companies, local Toronto entrepreneurs, and other third parties from around the world." but the framework should also look at how residents/citizens can be equal partners with industry and governments in the co-creation, co-design and co-delivery in the activation of urban innovation.	Thank you - we amended the text to specifically include individuals among the potential creators of services and solutions.	Volume 2, page 376
Though ubiquitous internet is proposed, it might be preferable in a multi-year plan to indicate who would provide this (Beanfield?), how it would be paid for and how ongoing upgrades, maintenance and connectivity would be operationalized.	We haven't established any partnerships yet. These details would be specified in agreement with the partner.	
"Sidewalk Labs prefers to purchase third-party technology, or partner with third parties to create (or enhance) it" This goes to questions of agency..... Why is Sidewalk purchasing the technology, would it not be through Waterfront Toronto as the public agency?	There are multiple procurement scenarios contemplated in the MIDP. In certain circumstances, it is appropriate for Sidewalk to lead procurement given its expertise in advanced technologies.	
<b>Expand Opportunity with ubiquitous connectivity</b> Given that Quayside scale is insufficient to 'recoup the investment' for digital infrastructure what investment is Sidewalk proposing to make to subsidise the implementation and prove the utility and claims for its approaches? "Technical guidance and requirements" are unlikely to be enough. Is this a privately owned or publicly owned network? How is it regulated?	Sidewalk is planning to arrange for ubiquitous connectivity in Quayside regardless of the fact that full recoup of the initial investment may not be possible on this site without further scale. Ownership and regulation of the network are still to be determined; however, the network will be in compliance with all applicable laws.	
I am curious why Sidewalk does not specifically name Beanfield MetroConnect as Waterfront Toronto's 'procured telecommunications partner'.	We haven't established a partnership yet.	
<From DSAP meeting> To what extent will the software-defined network be accessible from outside Quayside? Are residents expected to live, work and play in Quayside to get full benefits of the network?	The Software-Defined Network requires special hardware and software for the physical network switches, so it would be accessible in Quayside and via VPN. Please see the Software-Defined Network technical appendix for further details.	
Reduce installation and maintenance costs with an "urban USB port" What is the business model for infrastructure in the public realm? Is Koala a product to be purchased by Cities including the City of Toronto or will it be provided at no charge as part of a Quayside investment given its experimental nature? How do companies get access to Koala, and how does it impact their business model?	Koala is one of several Purposeful Solutions. The proposal for purposeful solutions originated with the RFP, which anticipated that its Innovation and Funding Partner would need to deliver certain "solutions" or "solution areas." Sidewalk Labs proposes to provide these solutions at cost to the public administrator and the management entities in the IDEA District. Koala mounts would be designed to work with any devices that meet its published standards.  Companies would be free to use other mount offerings or to use the traditional approach. For clarity, once once the public administrator / management entities have purchased Koala mounts, they would decide what devices may be mounted on it. Using Koala would not impact the business model of companies. However, it will lower installation costs and time, which may enable them to develop new products and pilots.	Volume 3, pages 123 - 124  Volume 2, pages 394 - 395
Establish distributed credential infrastructure to protect privacy This is a new proposal not yet presented to DSAP and the write-up is among the briefest which presumably reflects the maturity of this proposal. There certainly is great merit to limiting information disclosure to what is really essential but there are a number of questions that immediately surface among which are: · What is the actual proposed architecture? · What is the business model – is this a public service like X-Road or a private service? · How could the type of scenario that is described for apartment rental be enforced? <From DSAP meeting> Given the sensitivity of the overall project, is this something that Sidewalk really wants to include?	We re-drafted this section to address these questions and improve clarity. Although the need and value of this infrastructure is recognized, the precise architecture is still to be determined. Service providers would not be required to accept distributed identity credentials. However, adoption would provide value propositions both to end-users and service providers, and enable innovative use cases.  Distributed identity credentials are privacy enhancing technologies, and are one of the ways that the proposal aims to meaningfully establish a standard of privacy that exceed the requirements of existing privacy laws.	Volume 2, pages 398 - 399



## Digital Strategy Advsisory Panel: Detailed reconciliation of DSAP comments on the Digital Innovation Chapter draft

Comment	Details of Reconciliation / Response	Page Reference(s)
<p><b>Use best-in-class resiliency and security</b></p> <p>Preparedness and Responsiveness: For Threat Modelling and Response readiness in the case of critical Data Assets - How is this tied into the RDU framework and could it be more explicit as to how each approved data agreement would have a classification that would determine the requirements for Threat Modelling and Responsiveness.</p> <p>&lt;From DSAP meeting&gt; Given its importance for threat modelling / responsiveness, will data residency be addressed in the RDU?</p>	<p>The proposed RDUAs, like PIAs, would include consideration of data security, and technical, administrative, physical, and procedural safeguards. We have noted data residency as a consideration in the RDU in Volume 2.</p>	<p>Volume 2, pages 429 - 431</p> <p>Volume 2, page 430</p>
<p><b>Distributed Credential Architecture</b></p> <p>This section needs an example from the real world. WT is going to need regular people to wrap their heads around this but we also need professionals who work front line with sensitive information (but not necessarily on the tech/data side) to weigh in (e.g. social workers, health care people). WAAG has been doing work with digital wallets (see this event: <a href="https://waag.org/en/event/dsi-talks-blockchain-transparency-and-ethics">https://waag.org/en/event/dsi-talks-blockchain-transparency-and-ethics</a>). There will be public conversation challenges related to getting useful user feedback on this piece.</p>	<p>Thank you - we have re-drafted this section to improve clarity, but definitely acknowledge the challenge of communicating this technically complex topic to a range of audiences. The current text includes an apartment rental application example.</p>	<p>Volume2, pages 398 - 399</p>
<p>Open and secure standards role - in other smart city conversations elsewhere (eg. Community Capacity Support Program sponsored by Infrastructure Canada and being run by Evergreen/Open North) they are working with the Open Smart Cities framework (<a href="https://www.opennorth.ca/open-smart-cities-guide/">https://www.opennorth.ca/open-smart-cities-guide/</a>). Was alignment considered for this project?</p>	<p>Thank you. Yes - we believe there is substantial alignment between the MIDP and the Open Smart Cities Framework.</p>	
<p><b>Open and secure standards</b></p> <p>The Estonia example is often cited but it emerged out of a technology ecosystem that is quite different from ours. Where they are now is a product of many years of experimenting, talking etc. Starting this conversation now, in Toronto, given the history that got us here, especially with regard to this site, is quite a different proposition. By way of example, if you read the finalist submissions to the Smart City Challenge Edmonton, Montreal and Waterloo's are all clearly artifacts of their distinct local data ecosystems. You can't pick up what Edmonton proposed and make it work elsewhere - their proposal makes sense given the work they have done for the last 8 years. I flag this all to say writing abstractly about this work without recognizing how hard it will be for this conversation to meaningfully take place here underestimates the work ahead. No action needed.</p>	<p>Thank you for the comment.</p>	
<p>Responsible AI: I was surprised to see this in here. Of course governance of algorithms is important and relevant here but this sidebar: a) raises a discussion that hasn't yet really been had publicly with this project, b) hints at the need but doesn't robustly enough frame the issue. I don't really know what to recommend here because staying silent fails to recognize the importance but we don't really know what kinds of machine learning and advanced computational systems Sidewalk proposes to use, and we certainly don't have a governance framework for this technology (e.g. NYC has an Algorithm Accountability Bill and an Automated Decisions Task Force). Given the known problems, for example, with bias in facial recognition software this issue is vitally important in our diverse city. Does responsible AI come up in the chapter about community services - if it does it would be helpful for us to be able to review/comment. In these realms (e.g. health care, social service provision, community safety) the evidence is strong so far that the tech is not yet "responsible". The principles they are outline are good but the lingering question is who does this work? Accountability is important but hard to actually implement - who gets to audit the algo and when? Pre-procurement? This work is challenging when the algo is at the heart of the proprietary system being designed and sold. Under transparency there is a discussion about data inputs - again good idea in theory but in practice hard to implement. There's more to say here, but this is meant to help begin to frame the challenges.</p>	<p>We agree that this is important conversation we need to have, and we are actively following and participating in the discussion around responsible AI. We don't believe that being silent will advance the conversation even if we don't have THE answer. We fully expect this conversation to evolve, and this is one of the reasons we are proposing the creation of an Urban Data Trust - so that responsible data collection and use in the project is responsive to the evolving conversation. Our proposed Responsible Data Use Assessment also includes consideration of data bias, algorithmic bias, etc.</p> <p>Responsible AI is not discussed in the section on Social Infrastructure. To be clear, Sidewalk Labs would not provide any community services - it would work with local partners to ensure that critical services are accessible to all populations, including the most vulnerable.</p>	<p>Volume O, page 113</p> <p>Volume 2, pages 215 - 221</p>



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Urban Data - this is an existential question: for urban data collection how do the data collectors gain consent when it isn't practically possible to ask? In the tech meets urbanism realm, the answer to this question is really important to work through. This also comes up on page 37 ("Describe the notice, opportunity for consent, and control provided to the user.") - the presumption is that consent can actually be requested.	<p>Most urban data will be non-personal data e.g. traffic data, air quality data, etc. We are also proposing Responsible Data Use Guidelines which includes principles of data minimization and de-identification by default. The objective is to minimize the collection and use of urban data that is also personal information.</p> <p>Guidelines from the Privacy Commissioner of Canada suggest that implied consent may be an acceptable form of consent in certain circumstances, and provides advice on obtaining meaningful consent by emphasizing key elements in information provided about the collection, use, and disclosure of personal information. One of the ways the proposal addresses this is through enhanced transparency, including publicly accessible RDUAs for approved collections and uses, and registering the locations of devices on a publicly accessible map.</p> <p>We're also thinking about how individuals can be more aware of the collections, uses, and disclosures of Urban Data with initiatives like the Digital Transparency in the Public Realm project we initiated - a co-created prototype visual language to help people understand the collection and use of urban data in publicly accessible spaces: <a href="https://medium.com/sidewalk-talk/how-can-we-make-urban-tech-transparent-these-icons-are-a-first-step-f03f237f8ff0">https://medium.com/sidewalk-talk/how-can-we-make-urban-tech-transparent-these-icons-are-a-first-step-f03f237f8ff0</a></p>	
Urban data: building on the comment above, in my view the consent issue is also entangled with the bigger question of whether Sidewalk is collecting data on behalf of the city (in which case it is governed by MFIPPA and consent is not required) or whether this is private sector data collection. I find it problematic (and always have) that it is not clear and explicit up front whether what will be collected by SWL will be public sector or private sector data (or possibly some combination of both). It sounds to me as if SWL considers it all to be private sector data - if so, that should be explicit.	SWL proposes that all public and private entities wishing to collect and use Urban Data in Quayside: (1) obey privacy laws at all times, and (2) go through the RDU process. We have clarified this in Volume 2. It is possible that Sidewalk Labs would be collecting urban data on behalf of the city in some cases (in which case the city would be the accountable party), and in its own capacity in other cases (in which case Sidewalk Labs would be the accountable party).	Volume 2, page 429
Non-personal data - a small point: the definition of non-personal data should be data that is not about persons. It starts off with "data about an individual that does not identify an individual" and then give examples such as weather and temperature data (which is not about an individual at all). They already have de-identified data as a separate category. Their first category needs to capture data that is about things and the environment.	Thank you - we updated the language to reflect your comment.	Volume 2, page 417
Urban data as a public asset - "some types of urban data can be understood as a community or collective asset". Like public sector data? They give the example of traffic data. I think what they may be saying here is that Quayside will be a totally privately-owned/operated space -- so none of the data is public sector data, and the category of "urban data" is a partial concession to the fact that some of this data is really public sector data. Again, I would really like these assumptions to be explicit.	It is not the intent that "Quayside will be a totally privately-owned/operated space -- so none of the data is public sector data." We propose that both public and private entities wishing to collect and use Urban Data in Quayside: (1) obey privacy laws at all times, and (2) go through a Responsible Data Use Assessment (RDU) process with an independent, publicly mandated Urban Data Collective. The RDU would not replace, but rather augment, public bodies' existing PIA processes. We updated the language in Volume 2 so this is clearer. It is also proposed that the urban data that can reasonably be considered a public asset, whether generated by a public entity or a private one, be publicly accessible by default.	Volume 2 at page 429
The document also states "Part of using data responsibly involves making sure that no one entity... controls urban data that could reasonably be considered a public asset". Normally, that entity is the government - in the case of municipal data, the municipal government. I don't think SWL ever really addresses the question of why some of this data should not simply be municipal data to be managed by the municipality in accordance with its policies and practices. I agree that some of what might be collected is not traditionally municipal data and may even be private sector data, and so a data governance framework might be appropriate for it - but I am troubled by the complete exclusion of a role for public sector institutions.	The Urban Data trust and governance of urban data that can reasonably be considered a public asset definitely considers the role of public sector institutions. Volume 2 proposes the Urban Data Trust being implemented as a quasi-public agency or public sector agency as a longer-term option. We also also noted this in Volume 2 at pages 383 and 460 to make sure this is clear.	<p>Volume 2, pages 422 - 423</p> <p>Volume 2, pages 383, 460</p>
Urban Data Collective - I am a little troubled by the shift from a data trust (which, although a relatively new and fluid concept still has some meaning - and which is also based on well-established legal principles) to a "data collective". I am not persuaded by the statement on page 32 that the term will "bring connotations of many people or groups working together as a whole and for one public purpose." That seems wishful thinking, given that what is then described is an entity that doesn't leave a lot of room for collective approaches. This is not "collective" in the sense of collective bargaining (one way in which the term "collective" has contemporary legal meaning. And I don't think it's much like a copyright collective either (and copyright collectives derive their authority to manage rights on behalf of authors through a complex statutory and administrative scheme - something we absolutely do not have here).	We have amended the proposed name to "Urban Data Trust". Note that it is not proposed as a "trust" as the term is used in the law of trusts. As noted in the Open report Civic Data Trusts are not necessarily established as literal "trusts" - in fact they recommend that data trusts should be established without using trust law.	Volume 2, page 423



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Implementing Urban Data Collective - parts of this section are too specific and parts aren't specific enough. Too specific: recommendations about the number of board members; the title of the person to run it, defining their tasks ... Not specific enough: CDO will be responsible for "determining how the collective would be staffed, operated, and funded" - I think the funding part is one of the biggest questions lingering for this project right now. I think the MIDP authors hope to show they were taking this UDC seriously by sharing the details but by sharing so many details it is at odds with the independence they write about in paragraph one of this section. Same thing with the decision categories on page 39, for example. This kind of specificity seems odd in the MIDP unless in an appendix.	We acknowledge the comment and have tried our best to achieve a balance. There's been a healthy public discussion around privacy and data governance and we felt that key points needed to be addressed in the MIDP to clarify our proposed approach, which seeks to enhance privacy and data governance beyond the status quo. Again, we acknowledge that this is a proposal, and any final decision around the structure, functions, processes, etc. would be up to decision makers.	
Implementing UDC - I agree with the comments above. The description of the UDC is surprisingly detailed in some respects (right down to hinting at who should be hired to lead it). Resources are going to be a huge issue for this entity, and the resource issue is not adequately addressed in the document. I note that on page 31 there is some discussion about how "each party that desires to collect and use data in the designated geography pay a data collection and use administration fee to cover the costs of the UDC". Elsewhere in the document, they talk about data being made available as open data. Open data, in its traditional definition is open. No fees. No limitations. I find some of the UDC discussion inconsistent with the Open Data discussion. Lastly, how is what has been described a collective?	The overall orientation of the proposal is "open". This includes open architectures, public standards, well-documented APIs, open source (e.g. for parsing standard formats), and Urban Data being publically accessible by default. However, resourcing the Urban Data entity is a practical question and we have proposed options including fees to strike a balance - although we propose access should be free for basic use, but reasonable fees could be applied for commercial purposes or heavy use.  This proposed name has been amended to "Urban Data Trust".	Volume 2, page 434
<From DSAP meeting> How does Sidewalk propose that the Collective maintain control over data that has been made open? Does the first collector of data have a significantly higher burden than any future users of open data?	Sidewalk Labs proposes that subsequent users agree to license terms, for example, agreeing not to attempt to re-identify individuals or make inferences about individuals using the urban data. The particulars of the license would be for the Urban Data Collective to determine.  Yes, the first collector of urban data has a higher burden than subsequent users of the urban data.	
<From DSAP meeting> It is recommended that Sidewalk more clearly delineates that various types of urban/personal data, and its relationship with the legal concept of personal information. Is a deeper dive into the legal aspect of data collection - beyond residency - perhaps necessary?	We've endeavoured to make these distinctions clear and revised some of the language to improve clarity. This is discussed in some detail in Volume 2.	Volume 2, page 434
<b>Prioritize data residency</b> Given that Sidewalk Labs software development team and HQ is in New York, data will necessarily be required to be transmitted to that location and perhaps stored there for a time at a minimum for support and analysis purposes. What data does Sidewalk require for these and other purposes be in New York and how will it minimize those requirements?	Many of our projects do not include personal information at all. We also systematically analyze privacy considerations from the beginning our of projects, and apply data minimization as a principle throughout e.g. in the collection, use, transmission, etc. We also apply security measures such as encryption in the transmission of data.  We have also listened to feedback received during our public engagement, and in Volume 2 on page 412 have committed to using its best efforts at data localization — for storage, processing, and communication — as long as there are Canadian-based providers who offer appropriate levels of security, redundancy, and reliability. To the extent that it is deemed infeasible to store data solely in Canada, we would be transparent about such a decision.	Volume , page 412
Relationship between UDC and privacy law - There seems to be some tension between the concept of the UDC and the role of privacy commissioners in this document (and in the answer to a question I raised at the meeting). In some cases, it seems that the UDC usurps the role of the privacy commissioner (eg: in the example of the private garage operator). The UDC gets to say whether they can collect data as proposed in the 'geographic area'. Whether their collection/use/disclosure of personal information is PIPEDA compliant is really a matter for the OPC, and they are available to provide guidance to businesses. It doesn't stop some legally indefinable "collective" from offering advice to a business owner, or perhaps even from telling them what they can and can't do - but it does raise interesting questions about liability if, for example, the collection/use/disclosure is approved by the UDC but is later found to be non-compliant with PIPEDA. I had initially thought the concept of the Data Trust was to manage data sets (or APIs) for access by others to data collected via the project and to determine whether the proposed reuse was consistent with the public interest, setting limits or terms of use as required. What is in this document sounds like it's also trying to substitute for the OPC (and to do so with FAR fewer staff).	To clarify: (1) we believe all entities, both public and private, should comply with privacy laws and be subject to the oversight of the privacy commissioners at all times (2) we are not proposing exemptions for any entity, (3) we are proposing the UDC operate concurrent to the existing privacy regime. In other words, none of what we've proposed replaces the existing legal privacy framework - we are proposing that it adds to it.  We added language the following language to Volume 2 in response to this comment to clarify the above: "Provincial and federal privacy commissioners would continue to oversee compliance with all privacy laws. Additionally, this proposal calls for the establishment of an independent Urban Data Trust, ..."	Volume 2, page 419



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<p><b>Urban Data Collective (overall):</b> A lingering question I have about this section relates to what SWL needs/wants from the Urban Data Collective for it to be able to do its work. Much of what is written frames what the UDC might be and how it might work but seemingly a public good point of view. If the UDC is going to be independent and WT (although this isn't stated) might oversee its initial design and implementation until its independence is established, then it would be interesting/useful to hear what SWL would need this org to be to accomplish its goals. I recognize that there may not be political/practical appetite to share this information but it's very easy to invent new institutions and systems that are fundamentally at odds with the ecosystem they function in. If the UDC is supposed to be a platform for innovation that keeps the public good and sparks innovation, then hearing from SWL what their innovation needs are would be helpful. Others can weigh in on the public good.</p>	<p>Our key needs are to build a robust process that: stakeholders can trust, that can help advance the priority outcomes for the project, that provides additional protections for individual privacy and groups, and that makes publicly accessible the data that could reasonably be considered a public asset.</p>	
<p><b>Urban Data Collective:</b> The section discussing the Urban Data Collective is out of scope, in my view. Under the plan development agreement it is mentioned a total of once in Schedule I with the caveat that it will "Explore novel forms of data governance". Based on Schedule B I get how it could fit under the digital platform, but until recently the discourse did not point to this being a key part of the MIDP. Schedule B, also lays out in 1.04 that "the plan may require revisions of, or other approvals under, such existing applicable laws and existing policy framework, in which case the implementation of any such plans will be subject to the relevant Governmental Authorities making or granting such revision or approval. The MIDP will be developed through a process of co-creation and collaboration between the Parties, informed by a robust public engagement process and close collaboration with the City of Toronto and other governmental agencies and stakeholders. "</p> <p>This is a discussion that is ongoing with many different voices already at the table. The kind of real-estate they dedicate in this chapter to the Urban Data Collective is not at all exploratory, and will open up Waterfront Toronto, Sidewalk Labs, and the entire project to criticism that a private entity is driving public policy in the City of Toronto. The public draft should not have anything other than recommendations on what elements are required or essential to the civic data trust and will acknowledge in greater detail other suggestions at the table. If they wish to share in explicit detail on what a data trust for cities should look like, they are welcome to write a white paper or a separate report on this. Some of their past ideas were presented in this form - I see no reason why this case is any different.</p> <p>Context is important, part of why it is imperative they focus only on recommendations is that the Master Plan will go in front of Council and by merely glancing at what others have suggested and laying out bureaucratic processes, and even HR decisions, the Urban Data Collective will become the starting point and it should under no circumstance get to that point. Sidewalk Labs brings an important and valued perspective, I actually agree with some of its design, but they are not to dictate what a data trust looks like when it has such important implications to the work ahead with and after this project. To me that is the crux of why it is out of scope, on one end it is not exploratory, it is a prescriptive proposal, and its reach will go far beyond the project, which requires further consultation with other stakeholders and the City of Toronto.</p> <p><b>Enforcement.</b> I feel that the enforcement part of the governance model has not been adequately addressed. That is, who will be responsible for ensuring all stakeholders play by the rules and manage those that contravene the rules? Is it government? Is it a third party? If a third party, how do they get the power to enforce? What are the penalties? Who creates the legislation in the first place? This topic was top of mind for my table at one of the civic labs.</p>	<p>Over the course of our consultation, we heard a variety of concerns around the collection and use of what we've termed urban data. This is summarized in Volume 2. We felt we should acknowledge those concerns and address them in the proposal. We attempt to do this by first acknowledging that everyone should comply with applicable privacy laws at all times. In addition to that, we are proposing the creation of an independent Urban Data Trust to act as a steward for urban data and to address concerns that have been voiced. However, we recognize that our proposal is just one option, and acknowledge the City of Toronto's work in developing a policy framework and governance model for digital infrastructure. Finally, we recognize that this is a proposal, and the decision ultimately rest with the decision makers.</p>	<p>Volume 2, page 455</p>
	<p>Our proposal is built on the foundation that all parties comply with the existing, applicable privacy laws at all times. We are not seeking a change to privacy laws, nor the role of the Privacy Commissioners. We propose to build on that foundation with an Urban Data Trust that reviews Responsible Data Use Assessments for proposed collections and uses of urban data, and makes an approval decision. It is proposed that the Urban Data Trust would enter into agreements with entities for approved collections and uses, and that those agreements set out conditions for the collection, use, disclosure, etc. of the urban data. Those agreements could also establish the ability to audit, and the ability to act in the case of violations by, for example, cutting off power to sensors responsible for the violation. The government may decide to establish the Urban Data Trust as a quasi-governmental, or governmental body, if it wishes. Details are provided throughout Volume 2, and particularly at pages 420 - 423</p>	<p>Volume 2, pages 420 - 423</p>



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<p><b>The Geographic Area</b> - I have some discomfort with the idea that the UDC reigns supreme over the collection of any data within the "geographic area" defined by this project. I raised this concern earlier about their discussion of the RDU and the Thorncliffe Park women who were collecting data about park usage. To me, this was like a citizen science project - or like public participatory GIS. I have trouble getting my head around how and on what basis the UDC would have any right to control PPGIS or citizen science projects. It seems to me that there would be freedom of expression issues -- oh, but wait, this is not a public sector organization. Would residents have to get permission from the UDC to participate in the annual Christmas Bird Count? There have to be better boundaries to the scope of the UDC's jurisdiction than just geography.</p> <p>Geography gets even stranger when one considers the example on page 34-35 of the ride hailing service where the cars are equipped with sensors or cameras "capable of collecting data on passengers or the environment". According to the document, the use of urban data captured through the sensors and cameras (in the geographic area) would require an RDU assessment to be filed. Does this mean that if a ride hailing service operates in the city generally and sometimes enters the geographic area, they have to have an RDU for any data collected in the geographic area? If they don't, are they stopped at the borders? Do people have to get out and walk? If the cameras are security cameras in the vehicles and the use of these cameras is otherwise compliant with privacy law, why should an RDU be necessary? (Admittedly, although the ride hailing example is given in the document, on page 35, the "sidebar" seems to say that if there is a service, product or transaction that "expands beyond the Sidewalk Toronto project area" then it is excluded from the category of urban data. I think. It's a bit confusing - but that's rather the point.)</p> <p>On the same theme (overinclusiveness of their approach to data governance), I still have real problems with the condo example I raised at the meeting. I was not at all satisfied by the answer. Condo boards (legal governance structures) can decide to install security cameras in their buildings and can make decisions about access to and use of the data as long as these decisions conform with privacy laws. Why should condo owners have to have their collective decision about security cameras reviewed by the UDC. It's their building. And they have a legal governance structure. The situation might be different in an apartment building, but it seems to me that if there are concerns about privacy arising from security cameras in apartment buildings, the better recourse is to go to the privacy commissioner. The other role of the UDC (and what I thought was its principal role) is to make determinations about reuse of data. But I see little justification for making condo or apartment building security footage more widely available for sharing.</p>	<p>The proposal is attempt to respond to concerns that we heard related privacy and data governance, while enabling innovation by citizens, communities, the private sector, and the public sector. However, it is just a proposal, and we acknowledge that ultimate decisions around scope, structure, functions, etc. lie with decision makers.</p> <p>To clarify some specific points:</p> <ul style="list-style-type: none"> <li>- Volume 2 proposes the Urban Data Trust being implemented as a quasi-public agency or public sector agency as a longer-term option</li> <li>- We are proposing that private sector and public sector entities, not individuals, would need to submit an application for collection of urban data</li> <li>- The option of seeking recourse from the Privacy Commissioners always remains open - the Urban Data Trust is proposed to operate in addition to existing laws.</li> <li>- Condo or apartment security footage would likely not be made publicly available, since it would likely contain personal information.</li> </ul>	<p>Volume 2, pages 422 - 423</p> <p>Volume 2, page 434</p>
<p><b>Scope of 'jurisdiction' of UDC</b> - (this builds on my comments above about geography) Based on this document and on discussion at the meeting, it seems clear that SWL is of the view that governments seeking to collect data in the area must also go through the UDC (eg page 40, reference to a "government organization that collects licence plate numbers for enforcement". I have a big problem with this. Governments are democratically elected, governed by law, subject to the Charter, accountable in a variety of ways and subject to the rules of transparency. The UDC is not. So how does the UDC get to decide whether a government gets to collect data within its own sphere of jurisdiction?</p>	<p>The document we have presented is part of a broader proposal for decision makers' consideration. Ultimate choices about scope, structure, function, etc. of a potential Urban Data Trust belongs to the decision makers.</p>	



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<p><b>Setting Data Standards That Are Open and Secure</b>  <b>Enable third-party innovation with published standards</b>  While I applaud open data standards and open source for APIs at least one additional step is required. Any IP required to implement the open standards and APIs must be free and open as it is with the "Internet Standards" that are mentioned. This may be assumed but should be explicitly stated. We should not follow the path of commercial 5G standards where royalties are paid to the patent owners who have contributed to the standards for the use of 'Standard Essential Patents' on 'fair, reasonable, and non-discriminatory terms.'</p> <p>Barcelona City Council has adopted the following policy (my emphasis in bold)  "The City Council believes that the minimum characteristics for a specification and its associated documentation for them to be considered open standards are as follows:  • The rule is adopted and shall be maintained by a non-profit organisation and its continuous development is structured around an open decision-making procedure available to all the interested parties (consensual protection of privacy in the e- communication sector or majority decision).  • The rule has been published and the standard specifications are available free of charge or for a nominal fee. It must be available for copying, distribution and use by anyone, free of charge or for a nominal fee.  • Any intellectual or industrial property right surrounding the standard (for example, possible patents) is licensed to users free from royalties.  • There are no restrictions on the use and reuse of the standard." <a href="https://www.barcelona.cat/digitalstandards/en/tech-sovereignty/0.1/interoperability">https://www.barcelona.cat/digitalstandards/en/tech-sovereignty/0.1/interoperability</a></p> <p>I appreciate the thoughtful elements of the sections relating to ensuring data is open and shared, but I would also urge them to consider including elements of how open data will benefit citizens. The focus is strongly rooted in economic development, but there are several ways to include citizen-value, such as data stories.</p>	<p>We believe we have addressed this in Volume 2:</p> <p>Once data is made publicly available in standardized formats through well-documented interfaces, anyone with sufficient expertise could, in principle, create innovations that integrate with urban infrastructure and digital services. But that does not make it easy. Parsing the standard formats, processing public data for particular common purposes, or communicating with APIs often takes a lot of time and effort — and reduces the likelihood that innovators will engage and succeed.</p> <p>Where there are common tasks like these, Sidewalk Labs plans to share its software code publicly as "open source" — under licences like the Apache License (Version 2.0) or the MIT License — and encourage others to do the same. This approach has become common practice in the software industry, because it increases engagement with software systems. Over time, with contributions from software engineers across the world, this approach creates more robust and useful software.</p> <p>In keeping with the belief that open-source tools inspire creative new uses, Sidewalk Labs has released several of its tools as open source, including the CommonSpace app for supporting public life studies (see the "Public Realm" chapter of Volume 2) and the Toronto Transit Explorer prototype (available through the Sidewalk Toronto website). Sidewalk Labs plans to continue doing so in the future and to encourage others to do the same.</p>	<p>Volume 2, page 406</p>
<p><b>Creating a Trusted Process for Responsible Data Use</b>  For public realm data this process seems at best incomplete and perhaps unworkable as set out  1. Governments do not require the Urban Data Collective's permission to deploy sensors if they have the legislative authority to do so. What is Sidewalk asking them to do?  2. The City of Toronto already has a Privacy Impact Assessment policy and process. Does RDU replace it augment it or ...?  3. There is no discussion of a mechanism to enforce this in the private realm. How would condo corps and private building owners be required to adopt this on their own private property  4. Public security agencies are not discussed. If they are excluded from this process that should be explicit. Also what process would be followed for access to data if requested by a public security agency?  5. As proposed it seems the CDO has full authority without Board review or approval. There should be a public process around this such as publishing applications for a period for public comment and approval by the Board of the CDO's recommendations in public meetings with some ability for closed-meeting discussion of commercially confidential information. If you want to cut down a tree in Toronto you need public City Council approval.</p>	<p>Thank you for the comment. Proposed data collections would have to comply with Responsible Data Use Guidelines. We are proposing that the RDU Guidelines include a principal that data activity must serve a beneficial purpose. We are also proposing that Urban Data (provided that any concerns around privacy and sensitive data have been appropriately mitigated) be publicly available by default - which includes citizen access - and would be free for basic use. We've amended language to reflect that this will enable citizen-led innovation.</p>	<p>Volume 2, page 424</p> <p>Volume 2, page 434</p>
<p><b>&lt;From DSAP meeting&gt;</b> How can startups (or pre-launch products) fill out publicly accessible RDUs - when even disclosing purpose may be sensitive for their business model and/or IP?</p>	<p>1. We propose that all players be subject to the RDU process, but the decision of who is subject to the RDU process is ultimately up to decision makers.  2. The proposed RDU would augment City of Toronto PIA processes. The Urban Data Trust could work with the to streamline the incremental process of completing an RDU, since the RDU includes much of the content found in PIAs.  3. Decision makers have the option of establishing the Urban Data Trust as a quasi-public or public sector entity with a mandate given by enabling legislation.  4. Urban Data that is not personal information or at risk of re-identification would be publicly accessible by default. Lawful data access would be subject to the lawful access provisions in the applicable laws. We acknowledge that government may choose to exempt itself from Urban Data Trust requirements when acting in the public interest, such as emergencies or other urgent situations.  5. This is a helpful point and we have been giving it further consideration. Currently, we believe this proposal achieves a balance of interests and enables achieving the project objectives. However, we recognize that there needs to be room to learn and evolve, so we have proposed phased implementation. Ultimately, decisions around the Urban Data Trust's processes are up to government.</p>	<p>Volume 2, page 418</p> <p>Volume 2, Page 429 - 431</p> <p>Volume 2, Page 422 - 423</p>
<p><b>Step 4. Meet post-approval conditions</b>  I believe an important condition will be technological currency. Encryption, de-identification are just 2 examples of areas where it is extremely likely that technology will continue to advance. New security threats will emerge and require a response.</p>	<p>Thank you for this question. We struggled with this question and balancing interests. In the end, we sought to strike a balance by ensuring that RDUs are auditable by proposing the publication RDU summaries which touch on the key content, and which are more digestible for a general audience.</p>	<p>Volume 2, page 434</p>
<p>We agree, and believe ongoing consultation and input is a good starting point for maintaining technological currency.</p>		



## Digital Strategy Advsisory Panel: Detailed reconciliation of DSAP comments on the Digital Innovation Chapter draft

Comment	Details of Reconciliation / Response	Page Reference(s)
<p><b>Step 4: Post approval conditions - Auditing:</b>  The Urban Data Collective could decide that it would audit the system's de-identification techniques once in the next year (p. 43)." Is once-a-year enough? How do we know what kinds of timeframes are needed? Who gets to decide? And how will we conduct ongoing evaluation to make sure the early forays into data governance are on track? I raise this example specifically but intend this comment more broadly. There are so many data governance issues that need to be considered holistically and specifically in this project. And because a lot of what is being proposed is new, the first governance efforts might be clumsy or our best-guess. Active research/evaluation needs to be anticipated and funded from before the "doors open".</p>	<p>Annual audit of de-identification is provided only as an example. We believe that Urban Data Trust should retain the ability to audit as needed, and amended the language to reflect that in our proposal. We agree that this is new and will need iteration, so we are proposing phased implementation and ongoing input and consultation.</p>	<p>Volume 2, Pages 434 - 435</p>
<p><b>Launching Core Digital Services That Others Can Build On</b>  A number of the services proposed not only operate in the public realm but actually propose to manage City of Toronto assets.  - Mobility management system proposes to manage curbs and traffic signals among other things  - Public realm maintenance map of public assets  - Active stormwater management takes over the management of City stormwater systems  There is no discussion of how this would work. Surely Sidewalk is not proposing that a private entity take over the government's responsibility for setting the policy and having responsibility for the outcomes. It may be that the City could contract with Sidewalk (or others) to operate such systems as an agent of the City but the City must remain in control</p>	<p>A key principle in the proposal is strong public oversight - no urban project of sufficient scope or complexity can succeed without meaningful public oversight and an administrator capable of moving it forward. This is especially true for projects bringing new ideas and approaches to bear. Respective roles and responsibilities are summarized in Volume 3 at page 218. Public administration would maintain clear accountability and oversight, establish the policy objectives and frameworks, and set appropriate policy, regulation and legislation (summarized in Volume 3 pages 224 - 226 and 230 - 232).</p>	<p>Volume 3, page 27  Volume 3 at page 218  Vol 3 page 224-226 and 230-232</p>
<p><b>An outcome based building code system to enable a safe, vibrant mix of uses</b>  While I applaud the objective, as with other elements of this proposal, the role of government is completely absent. The proposal seems to rely solely on monitoring and enforcement by the building manager with the role of the city left to a 'future innovation'. I do not see how public health and safety can be left solely in the hands of a private sector building manager.</p>	<p>The proposed system is detailed in the Buildings and Housing chapter (Volume 2, Chapter 3) would be operated and managed by the building owner, and enforced by the City of Toronto, in full accordance with the standards established by the city.</p>	<p>Volume 2, Pages 251 - 252</p>
<p><b>An out-come based building code system to enable a safe, vibrant mix of uses</b>  This comment might be out of scope here (e.g. this is DSAP, not planning) but I'm going to share it anyway. Planners have been experimenting with different kinds of zoning (and then building code things) for the last 50 years. The technology to enable "radical mixed use" discussion didn't make it to us (it was on the agenda but we collectively prioritized other use cases) but on this one I am left wondering if this is technology being applied to a problem that might not be a real priority. When I think about the myriad challenges that our city/region faces, I'm not sure that this particular one is a top "public good" priority. It is too early in this process to tell yet but if there are resource constraints down the road, it might be good to sort if this is a want vs. need This isn't meant to be anti-innovation because commercial landlords and designers could benefit from this innovation but more if we have to pick, should this one be a priority.</p>	<p>We are taking an integrated approach to achieving the priority outcomes set out by Waterfront Toronto (job creation and economic development, sustainability and climate-positive development, housing affordability, new mobility including an emphasis on accessibility, and urban innovation including robust data privacy and digital governance) and believe that enabling a vibrant mix of uses while still protecting quality of life will help advance these priority outcomes. For example, an outcome-based building code system could unlock new local economic opportunities by safely enabling a broader mix of uses at both the building and district scales, including production spaces and small-scale industries.</p>	<p>Volume 2, Pages 251 - 252</p>
<p><b>Public Engagement Timeline</b>  Somewhere in the MIDP I think it is important to show how/when this project went to the public. Does each chapter have one of these tables? If yes, I'm not sure that is the most strategic choice. One big table that reaches across the project might be better. I think the table should differentiate between which public consultation/engagement efforts were led by SWL, ST and WT because each "entity" has its own working groups and activities. After the reset, WT hosted civic labs, for example. Given the earlier confusion about the working relationship between SWL, ST and WT, showing which org was the host might be good, especially for WT. I also think it would be good to map what information/topics were introduced/discussed at each one (complex, yes but this would let the reader/public map which ideas were shared in public and when. Eg. To the best of my knowledge we haven't gathered around responsible AI (pg. 22) at the DSAP, have we? Did they talk about it elsewhere? ). While the report makes reference to the work of the Fellows, they aren't listed in the table (nbd but should be there given Reference Panel and camps are).</p>	<p>The detailed public engagement timelines were replaced with high-level timelines in the final edits. Public engagement materials are published on the sidewalktoronto.ca website in the documents section.</p>	



## Digital Strategy Advsisory Panel: Detailed reconciliation of DSAP comments on the Digital Innovation Chapter draft

Comment	Details of Reconciliation / Response	Page Reference(s)
<p>In reading this chapter I was left wondering not just how our public sector entities will compliment or benefit from this additional infrastructure, but IF they could compliment or benefit from this work now. The City of Toronto has a great open data team, for instance, but they are still building their own capacity and infrastructure to make open data a powerful tool like it is in other cities like Chicago/New York not just outside City Hall, but inside.</p> <p>A lot of focus is put on the private sector, how they will benefit and new tools that will be available to them, but I think this project will open/has open a capacity gap in several fronts for our institutions. How do we close those gaps? It is not to say that ST or WT is to be responsible, or that I don't have faith in our public servants, but as a public servant I am acutely aware of the systemic limitations. For the sustainability of the project and infrastructure I think this is an important element to consider over the long run and how, perhaps, capacity building can be an element to consider as this project progresses. The rising tide lifts all boats and all that, think secondments, or how closer involvement as ST moves to implementation. As a small side note, I think this is an element that hasn't been fully explored - how this project's data could help the City of Toronto internally through this small scale project. From a scale perspective, those are the results that would make a City more receptive to scale. This project needs to be user-centric, but that includes public servants who will stewart this infrastructure too.</p>	<p>Thank you. We have been engaged with the City of Toronto specifically on the implications of the Urban Data trust for the city, and are continuing to ensure we are as responsive as possible to their needs and concerns. We are also proposing the use of open data standards and open APIs to reduce barriers to access and use the data for all, including government.</p>	<p>Volume 2, pages 400 - 411</p>
<p><b>Overall comment:</b> As I read this chapter I repeatedly found myself asking these questions related to data governance: "who is going to do this work?" and "how are we going to pay for it?". I'm not suggesting that SWL is responsible for sorting who does what but the absence of knowing who is responsible for the data governance work is a hole. I don't, for example, let my planning students make recommendations in reports without naming who is responsible to take up the work. From the outset I've said that this project is a very clear mirror back to all of us about the tech and data governance work that needs to happen and that the MIDP would show us with acuity what we need to sort quickly. So far, based on reading this chapter alone, I still think the same way.</p>	<p>Thank you for the comment. We are proposing an administrative fee for proposals to collect/use urban data, but acknowledge further details would need to be worked out. We look forward to further consultation, and have also proposed phased implementation to enable evolution of the model.</p>	<p>Volume 2, Page 420 - 423</p>



# Meeting Summary

## Digital Neighbourhoods and Digital Literacy

May 22, 2019

### Overview

On May 22, 2019, Waterfront Toronto and the Toronto Public Library co-hosted a public meeting about Digital Neighbourhoods and Digital Literacy. The purpose of the meeting was to share and discuss information about how digital technologies are influencing how cities work.

At the meeting, Waterfront Toronto presented its history in working with digital technologies and asked for feedback about Draft Digital Principles it developed to inform its consideration of any proposals related to the use of digital technology in emerging neighbourhoods on the waterfront; and, the Toronto Public Library presented and sought feedback about its Digital Literacy Programming to support awareness, understanding, and inclusion around digital technologies.

The meeting included opening remarks from Michael Geist, Chair of Waterfront Toronto's Digital Strategy Advisory Panel<sup>1</sup>, and presentations from Kristina Verner (Waterfront Toronto) and Pam Ryan and Alex Carruthers (Toronto Public Library). After a brief plenary discussion about their experiences with digital technologies, participants moved through discussions at four concurrent, rotating stations:

- Digital Literacy (hosted by the Toronto Public Library),
- Digital Justice & Digital Equity (hosted by the Digital Justice Lab and Tech Reset Canada),
- Digital Neighbourhoods (hosted by Waterfront Toronto), and
- Digital Principles (hosted by Waterfront Toronto).

At each station, subject matter experts shared information and asked participants for feedback about the topic being discussed. After the rotating, concurrent discussions, facilitators from each station reported back feedback highlights to the whole room, followed by a final, plenary discussion. Please see Appendix A for a detailed Meeting Agenda.

This summary was written by the facilitation team from Swerhun Inc., based on the notes taken at each of the discussion stations. It captures key themes from the discussion and is not intended to serve as a verbatim transcript. A draft of this summary was shared with participants for review before it was finalized.

### Detailed summary of feedback

The summary below organizes participants' feedback into the four topics discussed at the meeting: Draft Digital Principles, Digital Neighbourhoods, Digital Literacy, and Digital Justice.

#### 1. Feedback about Draft Digital Principles

At the Draft Digital Principles station, Kristina Verner, Vance Lockton (Waterfront Toronto), Jutta Treviranus (Waterfront Toronto's Digital Strategy Advisory Panel), Dave Dame (Waterfront

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<sup>1</sup> Dr. Michael Geist is also a law professor at the University of Ottawa where he holds the Canada Research Chair in Internet and E-commerce Law and is a member of the Centre for Law, Technology and Society



Toronto's Digital Strategy Advisory Panel), Chantal Bernier (Dentons Canada LLP) presented draft digital principles intended to inform Waterfront Toronto's consideration of any proposals related to the use of digital technologies in emerging neighbourhoods on the waterfront.

The draft Digital Principles include:

1. Inclusivity, accessibility, and shared benefit
2. Innovation, agility, flexibility
3. Transparency, accountability, responsibility
4. Privacy, data protection, cyber security and resiliency
5. Architecture, ownership and technological sovereignty

The following topics emerged through discussion:

**How will Waterfront Toronto use these Digital Principles?** Waterfront Toronto explained that it will use the digital principles to: evaluate proposals it receives from Sidewalk Labs, or other entities, related to digital technologies in emerging neighbourhoods; inform evaluation of proposals and commercial agreements, and; tell partners what the community might be comfortable with in any digital proposals. Participants suggested that Waterfront Toronto ensure these Principles complement the Federal government's recently launched Digital Charter.

**The role of education.** Some said that public education is very important to helping people understand different options and choices related to digital technologies in neighbourhoods. Others were skeptical that education could keep pace with the kind of technological innovation and range of data that could be collected as part of a digital neighbourhood.

**Importance of protections around privacy and data collection.** Participants asked how the digital principles would address privacy in digital neighbourhoods, such as Quayside. Waterfront Toronto responded that, in addition to principles that reference the importance of privacy and security, both federal and provincial governments have jurisdiction and regulations that would help protect privacy related to data collection on the waterfront.

Participants also suggested additions and reinforcements to the Draft Digital Principles, including:

- **Language that speaks to the importance of "redundancy" in any digital systems** since digital systems can and do fail.
- **Language that would help prevent facial recognition technology.** Waterfront Toronto responded that the Digital Principles create the mechanism by which sensitive data collections such as facial recognition can be closely examined. It is possible that, for instance, the use of facial recognition in CCTV cameras would never satisfy this level of scrutiny.
- **Principles relating to bias against, or marginalization of, individuals or groups should extend** beyond the use of aggregate data and algorithmic transparency.

## 2. Feedback about Digital Neighbourhoods

At the Digital Neighbourhoods station, Michael Wolfe (Waterfront Toronto), George Takach (McCarthy Tetrault LLP), Michael Geist (Waterfront Toronto's Digital Strategy Advisory Panel), and Natasha Apollonova (Toronto Region Board of Trade) engaged participants in a wide-ranging discussion about digital neighbourhoods, covering topics like: examples of digital neighbourhoods, potential roles and responsibilities of different actors in a "digital neighbourhood eco-system," privacy considerations, and how money and value move through



digital neighbourhoods. Participants also discussed some of the specifics of the Waterfront Toronto / Sidewalk Labs project being explored for Quayside. The following topics emerged through the discussion:

**Defining digital neighbourhoods.** Participants and presenters discussed whether it's possible to define when a neighbourhood becomes digital, including whether there is a threshold of technological integration that needs to be passed. Generally, everyone agreed it's difficult to define: there are older parts of the City that have had new digital technologies added to them (such as on King Street, where there are a range of digital traffic counters being used) and potentially emerging neighbourhoods, like the one at Quayside, designed with digital technologies in mind from the beginning.

**Excitement about the potential of digital neighbourhoods.** Participants gave examples of different possible applications of digital technologies in digital neighbourhoods that they thought were exciting, such as: traffic lights that hold a walk signal longer if an elderly person or a person with a disability is crossing the street; sensors that help people in wheelchairs more easily navigate; and sensors that help people with asthma understand real-time outdoor air quality. Generally, participants were excited about the potential for digital technologies to help people make more informed decisions, like how smartphone map applications help navigate. A few suggested it would be okay to begin building digital neighbourhoods as long as we go in with eyes open about the potential benefits and risks.

**Concerns about digital neighbourhoods.** Some participants said that, while technologies being explored in digital neighbourhoods are exciting, they are concerned about the security, hacking, and the manipulation of those technologies. They referenced the use of social media to hack elections and the lack of transparency about who is collecting what information from big tech companies as reasons for concern. Many participants said it's important to know "what is going on behind the scenes" and how to know, or learn about, who is collecting what data for what kinds of uses. They also said that it's important for existing regulations to be stronger and updated, especially around enforcement. Finally, some were concerned about the potential of LIDAR technology — which takes images of surroundings to inform data-driven services — to have the potential to personally identify people.

**The importance of data stewardship.** Participants discussed the importance of there being some kind of body to oversee the stewardship of data, saying there needs to be an institutional approach that defines laws and regulations around digital neighbourhood data (including who manages data, where it resides, how data is de-identified, and how/where data flows). Participants discussed the Toronto Public Library or a "digital trust" as examples of this kind of body. Generally, participants said there is value in a neutral, public entity overseeing data stewardship in digital neighbourhoods.

**Need to be ever-vigilant.** Given that technology is evolving at a rapid pace, it's important that policy and regulation keep pace to ensure that, in digital neighbourhoods, public interest and privacy are always being protected.

**Feedback about Waterfront Toronto / Sidewalk Labs project.** Some comments focused on the project being explored by Waterfront Toronto and Sidewalk Labs at Quayside. Some participants said this project represented an opportunity to explore digital neighbourhoods and get policies and regulations right for Toronto and Canada. Participants wanted to understand how Toronto might benefit from being a "testbed" for this project, saying the proposal from Sidewalk Labs should identify what exactly is being tested (and what the benefits are).



### 3. Feedback about Digital Literacy

Pam Ryan, Alex Carruthers, Kimberley Christmas, and Ab Velasco (Toronto Public Library) presented the Library's digital literacy programming and asked participants to share advice about issues or challenges they, or their community, might be facing in the next five years and what the Library could do to help them. Participants said they liked the Toronto Public Library's services and its programs that aim to build and support digital literacy. In particular, they liked the Library's online catalogue of e-books, audiobooks, and self-directed learning programs (such as for computer programming and Photoshop). Several said they enjoyed hearing about the programs and services offered by the Library, saying they were not aware of the amount and variety of services and programs it offers.

**Relationship to Waterfront Toronto, Quayside, and data trusts.** Participants asked about the Toronto Public Library's relationship with Waterfront Toronto and the project at Quayside. The Library explained that it has a history working with Waterfront Toronto and that both have a commitment to innovation. The Library was not involved with the Toronto Region Board of Trade report that suggested the Library could be a steward of data in Quayside, but it is happy to discuss data trusts and bring the Library's values to those discussions.

**Suggested services / programming the Library could offer to address issues or challenges that might arise in the next five years.** Participants suggested ideas for the Library to consider in its digital literacy services and programming:

- **How to read Terms and Conditions** when using digital tools, especially how user data is being used. This programming could also explore ways to make Terms and Conditions more user-friendly and accessible.
- **User rights and consequences of using programs, applications, tech, and/or other digital tools**, particularly what rights (if any) users give up when using a given tool. For example, while it is possible to turn off your smart phone, it could be difficult to disconnect from data collection in a digital neighbourhood.
- **How data is a commodity.** People should be made aware of the implications of how personal data can be used as a commodity and monetized.
- **Providing context on civic/open data collection**, including why data is being collected in the city (to alleviate concerns and increase public awareness).
- **How to identify truthful sources on the internet.**

Participants also shared other, broader advice about digital literacy programming, including:

- **Identify specific audiences that could benefit from digital literacy programming**, including seniors, children, new Canadians, non-English-speaking populations, low-income populations, and incarcerated people (so they can better integrate with society).
- **Launch a survey on the digital literacy of Library users and/or general public.** Library staff responded that the Library recently launched an online survey called "Bridge" to assess the use of the Library's technological resources.
- **Do more marketing about the digital literacy services/programs the Library offers**, including non-digital outreach methods.
- **Collect and present stats on digital resource (e-books and audiobooks) usage.** This data could add to the Library's prestige and illustrate the impact of these services.



- **Continue to explore opportunities to co-locate in malls, community organizations, and other local destinations.** Bringing the Library to the people may be an effective tool in engaging with residents. Eglinton Square Mall is a good example.
- **Continue to expand online resources and potentially offer instant online translation services.**
- **Explore a “rent-an-expert” service/program,** where people could “rent” a skilled person to teach about relevant, related topics.

#### 4. Feedback about Digital Justice

Nasma Ahmed (Digital Justice Lab) and Bianca Wylie (Tech Reset Canada) engaged participants in discussions about digital justice and digital equity. At this station, most participants said they were there to listen and learn, saying it's important to be inclusive and not leave people behind when it comes to digital literacy and education. They said that, since technology connects to health, education, justice systems, and is part of our everyday lives, it's important to recognize that there can be large benefits and consequences to how it's deployed. Topics that came up in the discussion included:

##### **The challenge of staying in the loop given the speed of technological innovation.**

Technology develops so quickly that it can be difficult to have meaningful engagement. The speed of development of technology also means it's difficult from someone to have good, up-to-date information and be able to participate without coming from a place of fear or inadequacy.

**Unequal distribution of internet infrastructure.** There are places in the GTA and Ontario (especially rural Ontario) where people cannot access the internet, which can influence people's ability to learn and participate in these kinds of discussions. An overview on Waterfront Toronto's partnership with Beanfield Metroconnect was provided (by a member of the public who was involved in the project), which gives waterfront residents and employees access to high quality, open-access broadband network for a fixed fee for 10 years after the completion of the last condominium. This partnership also includes deeply subsidized connections for affordable housing units.

**The importance of sovereignty.** While providing broadband network access is helpful, it's important for people to be able to “create the internet” (not just read it). People need to have sovereignty over data and the technologies that use that data rather than just being objects of data-driven exploitation.

##### **Concerns about digital technology embedded in physical tools and environments.**

Participants were concerned about the justice implications of “internet of things” products, including objects embedded with pervasive internet connections like smart thermostats, smart speakers, and smart watches. The normalization of always-on, always-connected devices can create justice issues since the way these products collect and use data can be used to disproportionately impact racialized minorities. For example, voice recognition software sometimes cannot detect “strong” accents and cameras can be used to monitor people on streets and support racism (if it detects certain people as “unwanted”). Some products/services do not capture or store data, like TTC CCTV footage that is deleted every 7 – 14 days and DuckDuckGo search that does not track users. Non-technology driven solutions — like having humans delete data — can help centre humans in digital literacy conversations.

**Safe infrastructure and global standards.** Participants suggested that global nonprofits are needed to set standards — right now, standards setting processes are volunteer-based,



creating access and implementation barriers (since only people have the time/resources to volunteer have a voice in setting standards). Just like how engineering and construction standards define and regulate how roofs should be built, there's a need for standards to define and regulate how digital technologies should be used in our cities. The internet and digital technology shouldn't be regulated by confusing "terms of agreement;" no one should have to worry whether their data is safe (just like how we don't worry whether the roofs over our heads are safe). For example, there should be transparency about the supply chain, including where our data is sent and how it is used (and whether our data has been deleted or secured).

**Defining innovation.** Rather than thinking of new technology as innovative, bringing inclusive models to already-existing technologies should be seen as innovative. This approach would be a contrast to the "move fast and break things" approach of some technological innovation. An important question to think through is "who gets to see themselves in the prosperity of society?"

### Next steps

Waterfront Toronto and the Toronto Public Library thanked participants for their feedback and committed to sharing a draft summary in the coming weeks. They also invited participants to share any additional feedback after the meeting.



## Appendix A. Meeting Agenda

### Digital Neighbourhoods and Digital Literacy

LEARN | ASK | TELL US WHAT YOU THINK

May 22, 2019

6:30 – 9:00 pm

Westin Harbour Castle — Metropolitan Ballroom East

#### Meeting Purpose

The purpose of this meeting is to share and discuss information on how digital technologies are influencing (and will continue to influence) how cities work. Both Waterfront Toronto and the Toronto Public Library are presenting and seeking feedback on ideas related to the role of digital technologies in cities.

Waterfront Toronto is seeking feedback on Draft Digital Principles developed to inform its consideration of any proposals related to the use of digital technology in emerging neighbourhoods as part of waterfront revitalization.

The Toronto Public Library is seeking feedback to inform Digital Literacy Programming that supports awareness, understanding, and inclusion around digital technologies.

#### Proposed Meeting Agenda

- 6:30 **Welcome, introductions, agenda review**  
Nicole Swerhun, Swerhun Inc., Lead Facilitator  
Michael Geist, Chair, Waterfront Toronto's *Digital Strategy Advisory Panel*
- 6:40 **Digging into digital**  
Kristina Verner, Waterfront Toronto  
Pam Ryan, Alex Carruthers, Toronto Public Library
- 7:00 **What's your experience with digital?**
- 7:30 **Discussion at four concurrent, rotating stations**  
Digital Literacy: Toronto Public Library  
Digital Principles: Waterfront Toronto  
Digital Neighbourhoods: Waterfront Toronto, Toronto Region Board of Trade  
Digital Justice & Digital Equity: Digital Justice Lab & Tech Reset Canada
- 8:30 **Plenary re-group**
- 8:55 **Wrap up**
- 9:00 **Adjourn**



# Draft Digital Principles

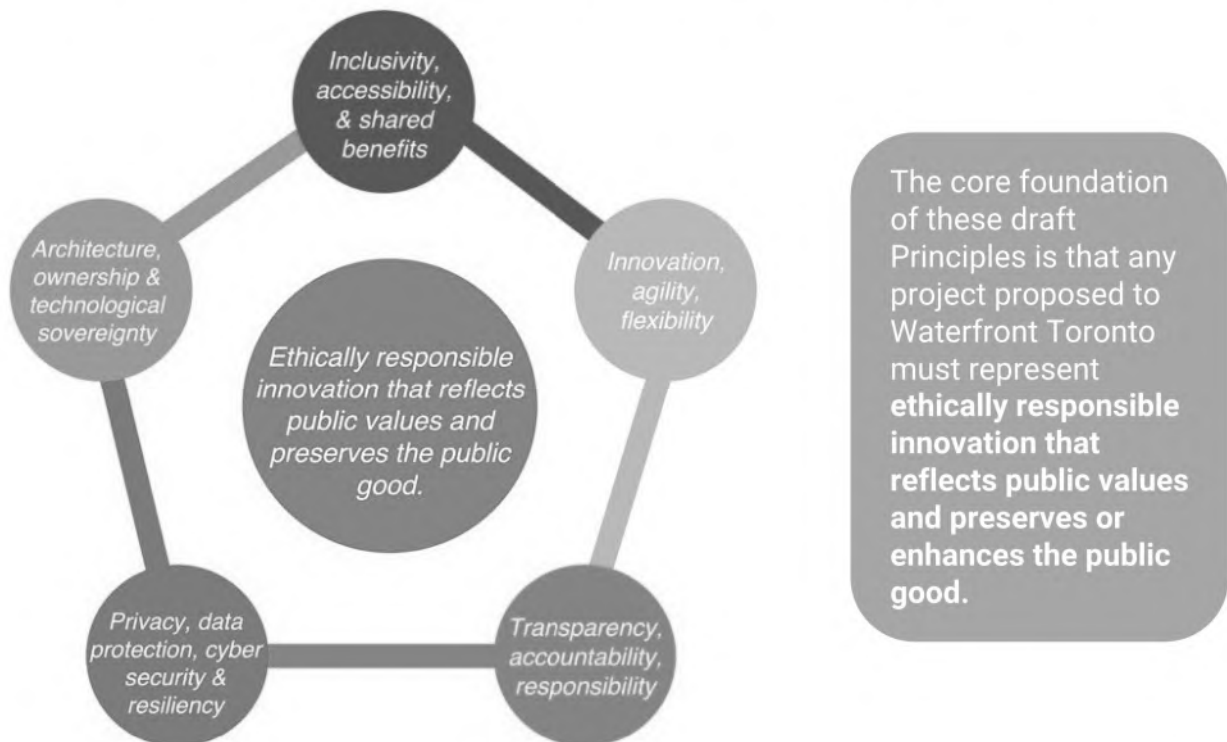
Digital solutions are being proposed to advance objectives for improving quality of life in waterfront neighbourhoods. When considering and evaluating solutions, Waterfront Toronto is focused on:

- Ensuring that personal privacy, civil liberties and human dignity are protected;
- Providing shared benefits, including an economic catalyst for open innovation;
- Informing the broader public policy dialogue on digital technology and data;
- Determining whether technology is the right answer to the challenge or opportunity; and
- Future-proofing emerging neighbourhoods, ensuring resiliency and adaptability.

These draft principles have been developed through our recent Civic Labs and are informed by the work of cities around the world, including the efforts of the *Cities Coalition for Digital Rights*. They also incorporate feedback from a public consultation on a prior version. We will next engage our Digital Strategy Advisory Panel for their expertise and guidance, in late July.

It is important to note that any projects or proposals made for the waterfront would need to fully comply with all applicable legislative and regulatory requirements, including:

- Canadian Charter of Rights and Freedoms
- Personal Information Protection and Electronic Documents Act (PIPEDA) (Canada)
- Privacy Act (Canada)
- Municipal Freedom of Information and Protection of Privacy Act (Ontario)
- Freedom of Information and Protection of Privacy Act (Ontario)
- Any new legal/regulatory requirements which may be introduced or amended.





## Principle #1: Everyone will have access to, and benefit equally from, digital solutions

This includes:

- Universal access to affordable internet, inclusive design of digital solutions on equitable terms, and the digital literacy efforts to promote the skills to use these resources.
- Creating opportunities for individuals and groups to engage with their community through open, participatory and transparent digital processes.
- Identifying and, to the extent possible, mitigating any potential bias against or marginalization of an individual or group.
- Sharing, as appropriate, non-personal and de-identified data collected with government-provided open data portals, the research community or other third-party organizations who are contributing to the advancement of the public good.
- Designing digital solutions and accompanying commercial terms to minimize the impacts of information asymmetry.

## Principle #2: Digital solutions will be open, ethical, and resilient

This includes:

- Use of protocols, standards and operating agreements that do not foster monopolies, barriers to entry, vendor lock-in, or dependency on a sole vendor to provide related products or services.
- Providing digital solutions through open and ethical digital service standards.
- Ensuring digital solutions are developed and operate using only ethically sourced data.
- Requiring that solutions – particularly those related to infrastructure – be secure and resilient, including the implementation of measures allowing for safe failure.

## Principle #3: Everyone will be able to understand how their data is being collected and used, and how organizations can and will be held accountable for their practices

This includes:

- Specific measures to ensure transparency of collection, use, retention and disclosure of personal data.
- Mechanisms to proactively address concerns about the potential misuse of data by fulfilling individuals' rights to access, review and correct their data.
- Access to understandable and accurate information about the digital solutions (including underlying algorithms or artificial intelligence) that are proposed or adopted, and the ability to question and change unfair, biased or discriminatory systems.
- Ability to override automated decisions that are inconsistent with the public good.
- Review of any proposed project that could have a significant impact on a person or group by the Waterfront Toronto Digital Strategy Advisory Panel prior to implementation.
- Active monitoring of compliance with these principles to ensure the objectives are achieved and maintained, and public access to the results of these compliance reviews.
- Requiring that the organization responsible for any proposed project must demonstrate knowledge of, and adherence to, any applicable guidance published by a relevant regulator (such as the Privacy Commissioner of Canada or the Information and Privacy Commissioner of Ontario).



- Requiring that organizations be willing to comply with any investigation, audit or other compliance action by an applicable regulator, including where such cooperation is "voluntary" under the regulation.

#### Principle #4: Strong privacy protections will be in place at all times

This includes:

- All initiatives and products that use personal data will be the subject of a published Privacy Impact Assessment to identify privacy risks and corresponding mitigation strategies before implementation.
- Embedding privacy in any initiative or product development through Privacy by Design.
- Collection of personal data by, or on behalf of, government agencies must be accompanied by a demonstration of necessity and appropriate notice to individuals. Collection of personal data by businesses requires informed consent, full identification of purposes (in a contextually appropriate form), and clear options to not provide, and to later withdraw, consent.
- Minimization of collection, use, retention and disclosure to what is necessary for the provision of identified and approved services that demonstrate benefit to individuals. This includes limiting collection through, among other measures, the use of non-identifying technology (e.g. motion sensors rather than cameras) and automatic deletion of identifiable data when no longer required.
- De-identification of personal data at source, unless the collecting organization has obtained consent – or, in the case of government, demonstrated necessity – to store the data in identifiable form.
- Prohibiting profiling, without demonstrated necessity or informed consent by government or without informed consent by business, for any purpose.
- Prohibiting data collected within waterfront projects from being used for advertising purposes without express positive consent.
- Protecting data through appropriate security measures, mandatory breach notification, and prohibitions against disclosure without consent (except where explicitly permitted by law).

#### Principle #5: Data and systems will remain under local control and be subject to local laws

This includes:

- Granular policies regarding data residency and routing that are informed by legislative requirements, global best practices and project objectives (e.g., potential research and development exemptions, support escalation requirements, etc.), which policies would be adopted and made public.
- As a first principle, data collected in waterfront neighbourhoods will remain in Canada.
- Decision-makers (including individuals) have the freedom to use the technologies of their choice, and expect the same level of interoperability, inclusion and opportunity in their digital services.
- Adaptability of solutions to new legislative or regulatory conditions that may emerge.



# Note to Reader

Waterfront Toronto's Guide to reading the  
draft Master Innovation and Development Plan  
proposal submitted by Sidewalk Labs

July 8, 2019  
(Amended)

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## 4.5 Digital Innovation

### 4.5.1 What We Asked For

With a legacy of enabling digital infrastructure and ubiquitous connectivity, Waterfront Toronto sought to further advance technology-enabled, inclusive and connected communities with our Quayside Innovation and Funding Partner. Our aim is to create a neighbourhood that leverages the strengths of world-class digital infrastructure to advance our concurrent goals of sustainability, improved mobility, economic development and to support data-informed decision-making for residents, visitors, investors, employers and service providers.

We also outlined our commitment to work with our selected Innovation and Funding Partner to identify the required governance constructs that could assist in stimulating the growth of an urban innovation cluster on Toronto's waterfront, including new demonstration spaces, project



testbeds, and industry-academic partnerships. These initiatives would rely upon a robust network of digital infrastructure.

In response to these objectives, Sidewalk Labs has made a number of proposals which are intended to build upon, replace, or otherwise enhance this digital infrastructure.

Note: The *Urban Data Trust* described in this section will be discussed in Chapter VII of this document on Privacy and Data Governance.

#### 4.5.2 Sidewalk Labs Proposal

First, Sidewalk Labs proposes to extend ubiquitous internet connectivity with Waterfront Toronto's existing telecommunications partner, *Beanfield Metroconnect*. This would include leveraging advances in network management to provide secure Wi-Fi connections throughout the project area that provides the ability for residents and employees to maintain a connection to their home or office networks in any location. Sidewalk Labs also proposes to explore the use of a technology called "*Super-PON (Passive Optical Network)*" to create higher bandwidth than traditional residential fibre-optic networks.

Second, Sidewalk Labs proposes to deploy a standardized mount (an "urban USB" referred to as *Koala* or a *Koala standardized mount*) on light poles and other street fixtures that would allow sensors and other devices to be quickly installed and connected to both power and the internet.

Finally, Sidewalk Labs intends to explore the use of a decentralized digital credential system designed to allow individuals to provide only the minimum necessary information to complete a transaction (for example, an assertion that an individual is a resident of Quayside, without disclosing their name or address). The design of this system would allow this to be accomplished without third parties having visibility into the transaction. Decentralized digital credential systems are being developed by other parties around the world; Sidewalk Labs acknowledges that they would explore how they could be integrated into its digital services.

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*For more information on the digital infrastructure proposals see Volume 2, Chapter 5 of the MIDP; for the proposed Super-PON technology see Volume 2, Chapter 5, page 386 of the MIDP; for the proposed standardized mounts see Volume 2, Chapter 5, page 394 of the MIDP; and, for the proposed digital credential system see Volume 2, Chapter 5, page 398 of the MIDP.*

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**Priority Considerations:** Sidewalk Labs has initial proposals relating to data collection, data use and digital governance. Waterfront Toronto will require additional information to determine whether they comply with applicable laws and respect Waterfront Toronto's digital governance principles.

#### 4.5.3 Alignment with Existing Practices

Since 2008, Waterfront Toronto has had an [agreement with Beanfield Metroconnect](#) as the non-exclusive provider for connectivity in all new neighbourhoods. This agreement includes the provision of a 1Gbps symmetrical services, priced well below traditional market rates and pricing structures for affordable housing residents (in some cases as low as \$0 per month). Beanfield is obligated to maintain the network's service among the best in the world for at least 10 years after the completion of the final building in the waterfront.



Sidewalk Labs would be obligated to work with Beanfield Metroconnect in the provision of its ubiquitous network connectivity.

#### **4.5.4 Proposed New Practices**

The Sidewalk Labs proposal primarily sets out potential updates and/or improvements to existing practices (for example internet access, sensor installation, proving a credential), as opposed to net-new practices. Each of these proposals is presented as being complementary to, not exclusive of, existing practices.

#### **4.5.5 Privatization of Public Roles or Assets**

To the extent that standardized mounts (Koala) are sold outright and operate independently from Sidewalk Labs, no privatization of a public asset would occur. However, privatization could occur if Sidewalk Labs retains an interest in the mount, or the power, or network connection running to it. The intended model is not specified in the proposal.

It is also possible that a decentralized credential system could involve the issuance of verified credentials by private actors, replacing or operating alongside government-issued identifiers. However, this proposal is at an exploratory stage and such systems are being developed independently of this proposal. Waterfront Toronto is aware of significant competitive developments regarding these solutions that need to be explored as part of a due diligence process during the evaluation phase.

#### **4.5.6 Financial Impacts**

First, Sidewalk Labs states in the proposal that ubiquitous connectivity “would only become financially sustainable at a larger service area, given the number of residents or businesses needed to recoup the initial investment.” Waterfront Toronto’s existing contract with Beanfield Metroconnect accomplishes this scale using traditional fibre-based technologies.

Sidewalk Labs also proposes certain requirements be placed on buildings in the neighbourhood to support its SuperPON network. It is unclear whether these requirements would have a significant impact on building costs beyond what is already required in the agreements with Beanfield Metroconnect and Waterfront Toronto’s development partners.

Second, Koala mounts are identified as a “Purposeful Solution” which would be provided at cost. Given the number of mounts potentially required within the neighbourhood (and the need to ensure that each mount has access to both power and network connectivity), this may be a significant initial financial outlay. However, it is possible that these costs could be recovered based on cost savings for the installation of sensors, as compared to traditional mounts. There is an additional financial consideration for third party early adopters of the mount specifications, who may be required to retrofit their existing equipment to attach to the Koala devices. It is unclear if Sidewalk Labs is prepared to contribute to this initial cost to encourage the use of Koala.

The potential for increased indirect costs associated with standardized mounts may also exist, including rising costs of sensors, lighting, signage, etc. should competition be lessened due to few companies opting to make compatible products, or companies increasing prices to make existing products compatible.

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*For more information on proposed Purposeful Solutions see Volume 3, Chapter 2, page 123 of the MIDP.*

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#### 4.5.7 Risk Identification

Within the digital innovation proposal, examples of risks to consider include:

- Reliance on third party decisions (such as the creation of Koala-compatible devices, or integration of the chosen digital credential system) to achieve benefits, and/or creation of a preferential environment for certain vendors who have partnerships or capacity to take such actions.
- Potential that a bad actor could now, or based on a future modification to technology, gain access to all data flowing through Koala mounts, or prevent public realm data from being shared in an open, non-discriminatory manner.
- Potential that reducing the burden of installing devices that collect personal information could lead to increased surveillance (for instance, allowing cameras to rapidly be deployed prior to a protest).
- Potential that Koala mounts or other Sidewalk Labs-installed technology could be a target for malicious activity that disrupts infrastructure.

Waterfront Toronto is committed to ensuring that the public's concerns are captured in relation to the Digital Innovation proposal, and that mitigation measures and conditions for potential approval are explored.

#### Questions to Consider – Digital Innovation

- What do you see as the potential benefits and risks of the digital innovation proposals put forward by Sidewalk Labs?
- What assurances should be put in place to ensure that neither Sidewalk Labs nor any other party obtains monopolistic control over digital infrastructure?
- What provisions should be in place, should infrastructure elements fail or no longer be supported by Sidewalk Labs?
- Should the MIDP consider solutions—such as a decentralized credential service—which do not focus on solving specific urban challenges? Why or why not?
- Are there specific areas of the digital innovation proposals that you believe you need additional assistance in understanding prior to being able to determine whether or not you support these elements? If yes, please provide the topics that you feel you need this additional level of information for.



### 5.3.3 Transaction Economics – Intellectual Property

#### 5.3.3.1 What We Asked For

The 2017 RFP stated that Waterfront Toronto and the selected Innovation and Funding Partner would lead development of an investment strategy for the project. As part of this, the strategy was to address “ownership and sharing of intellectual property resulting from the Project,” and the Partner was required to submit “a preliminary framework for a potential management approach for Intellectual Property introduced to or developed through the project, and any revenue sharing between Waterfront Toronto and the Partner.”

#### 5.3.3.2 Sidewalk Labs Proposal

The framework put forward by Sidewalk Labs has two principal elements:

##### i. Profit Sharing/Testbed

In the MIDP, Sidewalk Labs states that “neither Waterfront Toronto nor the public is primarily a technology developer,” and asserts that co-created technology (for which there would be co-owned Intellectual Property) is not likely to arise. [Notably, while Waterfront Toronto acknowledges it is not a technology company, we do not accept that it necessarily follows that we have not, and will not in the future, participate in the co-creation of technology.]

Notwithstanding this assertion, even in absence of a co-creation role, the public must benefit from: (i) products or other solutions that would not have been created were it not for the Quayside project, and (ii) products and solutions that materially benefit from being exposed to the Quayside environment in their product development, testing, or early commercial release.

To address Waterfront Toronto’s objectives, Sidewalk Labs has proposed that the public sector receive 10% of Sidewalk Labs’ global profits from “Testbed-Enabled Technologies” for a period of 10 years, starting when each technology is sold to a second customer. A “Testbed-Enabled Technology” is defined as a technology that is first deployed at scale in the project area, and for which the following conditions are established by the relevant stakeholders, as and if applicable to each technology:

- Access to mount or deploy the technology in physical spaces;
- A mandate to use common software standards that enable compatibility and interoperability (for instance, all building access systems must use the same open standard);
- Approvals in place, up front, and regulatory conditions that support the physical, digital and operational conditions required;
- Sufficient scale for efficacy or to otherwise achieve desired outcomes; and,
- An ecosystem that provides the opportunity for all the physical, software and regulatory conditions simultaneously.



Implementation agreements would establish a process to determine, prior to deployment, whether the product is a Testbed-Enabled Technology.

## ii. Patent Pledge

Sidewalk Labs proposes to pledge not to assert any granted patents in Canada which cover the software or hardware that enable digital innovations related to the project, so long as companies using those patents do not assert their own patent rights against Sidewalk Labs or its affiliated companies. The intent of such a pledge is to facilitate innovation and collaboration by third parties, including Canadian technology companies, in Quayside free of the threat of patent litigation.

Sidewalk Labs states that it will publish the full content of the pledge on its website, along with a list of patents included in the pledge as they are developed.

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*For more information on the proposed transaction economics for technology deployment see Volume 3, Chapter 2 of the MIDP; for the proposed profit-sharing for testbed-enabled technologies, see Volume 3, Chapter 2, page 126; and, for the proposed patent pledge see Volume 3, Chapter 2, page 127.*

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### 5.3.3.3 Additional Considerations - IP Identification

Waterfront Toronto has given significant preparatory consideration to the issue of Intellectual Property and how value can be appropriately captured.

For example, following the receipt of an early draft version of the Pillar content of Volume 2 of the MIDP, Waterfront Toronto examined whether there was any potential intellectual property that may be created through this project, and what contribution Waterfront Toronto or the project has made, or will make, to it (e.g. playing a co-creation role, acting as a testbed, etc.). Below is an excerpt from that exercise:

Solution	Contribution Type
<b>MODUS:</b> A mobility management system capable of coordinating all streets, signals, lanes and trip options in line with local objectives.	Testbed-Enabled Technology
<b>Autonomous Building Schedulers:</b> Systems to help schedule and manage systems, equipment, and appliances that impact energy use and GHG emissions, by integrating relevant data from building systems to improve coordination, incorporating external data sources, such as tenant temperature preferences, operating budgets, building occupancy, weather forecasts, and real-time energy prices; and making decisions to improve equipment control and scheduling consistent with monthly energy goals.	Testbed-Enabled Technology

### 5.3.3.4 Risk Identification

Waterfront Toronto has also identified a number of challenges and risks associated with the sharing framework in the MIDP. For instance:

- Will the project area be sufficient to meet the scale requirement for a “Testbed-Enabled Technology”?



- A profit-sharing model creates challenges related to calculation or audit, as opposed to a revenue sharing model.
- While the Patent Pledge is useful, it does not obviate the need for other technology companies, including Canadian companies, operating in Quayside to obtain appropriate intellectual property protection when they sell into markets outside of Canada.
- What will the impact of the Patent Pledge be in helping to create a competitive innovation environment in Quayside, particularly for those suppliers who choose to take advantage of the patent pledge for their own Intellectual Property strategy?

**Question to Consider – Economics of Intellectual Property**

- What do you see as the potential benefits and risks of moving forward with the intellectual property transactions proposed by Sidewalk Labs?
- What suggestions, if any, do you have for Waterfront Toronto as they review these intellectual property proposals?



## Chapter VII: Privacy and Digital Governance

### 7.1 What We Asked For

Waterfront Toronto's 2017 RFP stated that submissions should "reflect broader urban innovation, including technology-enabled, inclusive, connected communities." It also stated that the selected Innovation and Funding Partner would work closely with Waterfront Toronto to identify "the required governance constructs to stimulate the growth of an urban innovation cluster, including legal frameworks (e.g. Intellectual Property, privacy, data sharing),...". Thus, it has been clear since the outset of this project that digital governance – which includes but extends beyond privacy – must be addressed. For greater clarity, neither Sidewalk Labs or Waterfront Toronto have the authority or mandate to draft or enact public policy or regulations.

#### 7.1.1 Existing Digital Governance Measures

Current legislation represents a foundational digital governance structure, for this or any other project at Quayside. All digital innovation must be compliant with all applicable legislation, including the *Canadian Charter of Rights and Freedoms*, the *Human Rights Code (Ontario)*, the *Accessibility for Ontarians with Disabilities Act (Ontario)*, the federal *Personal Information Protection and Electronic Documents Act (PIPEDA)*, the federal *Privacy Act*, the provincial *Freedom of Information and Protection of Privacy Act (FIPPA)* and provincial *Municipal Freedom of Information and Protection of Privacy Act (MFIPPA)*.

Building on this foundation, Schedule I of the Plan Development Agreement set out a series of Digital Governance Framework Principles, speaking to:

- Personal privacy, civil society protections and technological sovereignty;
- Data governance and stewardship that ensures both data/information sovereignty protection and innovation;
- Data sovereignty; storage and routing;
- Serving as an enabler/catalyst for open innovation;
- Responsive / agile policy framework to adapt to new realities;
- Ensuring a secure environment for all products and services; and,
- Responsible data use.

The purpose of those principles was to "ensure that digital innovations and solutions protect personal privacy and civil liberties while providing shared benefits, including as an economic catalyst for open innovation, and to inform the broader public policy dialogue on digital technology and data."

### 7.2 Sidewalk Labs Proposal

Sidewalk Labs proposed a new data governance model that it states would be applied to data collected and used in Quayside. As Sidewalk Labs states that it would only be one of many actors that may collect and use data to achieve the objectives for the project set forth by Waterfront Toronto, it is proposing a digital governance framework that would be incorporated into the development plan for the project and then applied to all parties who propose to collect and use data, before the collection and use of data can begin. Sidewalk Labs states that its framework starts with complying with existing privacy laws and a process which would remain under the oversight of Canada's privacy commissioners. Sidewalk Labs then states that its proposal builds on that foundation, and it proposes creating a "trusted process for responsible data use".



The responsible data use process proposes that any collection or use of *urban data* generated in this place must, in addition to being in compliance with existing privacy laws, adhere to responsible data use guidelines that are assessed using a responsible data use assessment (a review process for any collection or use of urban data). It should be noted that there is no concept of urban data in Canadian privacy law. There, the relevant distinction is whether information relates, or could be related, to an identifiable individual (and is thus personal) or not. Data that is captured in urban spaces is protected by privacy law where it can be linked to an individual (e.g. security cameras) and it falls outside of privacy law when it does not (e.g. sensors that detect the presence of a pedestrian and nothing else, or air quality readings that do not relate to any individual).

The responsible data use process would be similar to a privacy impact assessment that is mandated by policy for many public sector entities, which requires a full privacy analysis as part of a given project's decision-making process. The Government of Ontario Freedom of Information and Protection of Privacy Manual, for example, specifically includes reference to Privacy Impact Assessments (PIA) as "a process that reviews a new or existing information system or program to determine whether measures are necessary to ensure compliance with personal information protection requirements in statute and regulation and to address the broader privacy implications of the system or program."

A key part of Sidewalk Lab's proposal is that all urban data that parties propose to collect and use in this place would be overseen by an Urban Data Trust, intended to be a "steward of urban data and the public interest without stifling innovation." Sidewalk proposes that all entities – including public and private sector actors – collecting or using urban data would be subject to this process and that the trust would have the authority to approve - or reject - any proposed collection or use of urban data. If a data collection or use activity is approved by the trust, summaries of the responsible data use assessments and locations of any data collection device would be published by the trust to increase transparency.

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*For more information on the proposed responsible data use and data use assessment, see Volume 2, Chapter 5, page 414 of the MIDP.*

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Next, Sidewalk Labs proposes to adopt, promote and/or develop "clear standards that make data publicly accessible, secure, and resilient" and the proposed trust would facilitate the availability of properly protected data by advocating a standard to make such data publicly available by default. This is intended to allow individuals, researchers, and organizations to more easily access properly protected open data from Quayside (including data collected in the public realm), to inform decision-making and to promote use of this data by third-parties in the creation of new or competing services. It is also intended to increase security and resiliency for critical infrastructure.

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*For more information on the proposed data standards see Volume 2, Chapter 5, page 403 of the MIDP.*

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## 7.3 Additional Considerations - Compliance and Privacy Risk

### Identification

Sidewalk Labs has initial proposals relating to data collection, data use and digital governance and it is proposing a framework that would apply to any proposals to collect and use data in the



project area. It would be premature to make any evaluation of the proposed innovations as they are still under development and not yet at a stage that can be assessed for full compliance with Waterfront Toronto's principles and the governing legislative and regulatory frameworks. To date, what Sidewalk Labs has proposed is a process for how any data collection by such innovations could be evaluated and considered and potentially approved – or rejected.

In addition to the proposals made by Sidewalk Labs, including those related to mitigation measures, Waterfront Toronto has undertaken a preparatory review (with Dentons LLP) to identify potential privacy risks and mitigations for every proposed innovation in the MIDP.

Waterfront Toronto recognizes that many of the ideas proposed in the MIDP rely on technologies that are still under development. At this stage, the focus of our evaluation will be the framework that is being proposed, though we will also evaluate all digital innovations and solutions based on the merits of the information provided thus far. Should the project move forward to an implementation phase, additional evaluation related to privacy and/or data governance will need to be conducted with additional detailed information – such as data flow diagrams, Privacy Impact Assessments, Threat Risk Assessments, and/or preliminary Responsible Data Use Assessments – being provided by Sidewalk Labs, or an appropriate third party.

## 7.4 Alignment with Existing Practices/Proposed New Practices

Sidewalk Labs has put forward a proposal for a data stewardship body called an Urban Data Trust.

Work is ongoing at all levels of government, among academia and in civil society to address digital governance concerns. Waterfront Toronto is monitoring these developments.

Sidewalk Labs has proposed that the Urban Data Trust would not replace existing privacy laws and would be implemented through the agreement between the parties and as part of the development plan through contracts with proposed collectors and users of urban data. Waterfront Toronto is interested in looking closely at this creation mechanism and how it would complement existing oversight mechanisms, or if created whether it would resemble the structure set out in the Sidewalk Labs proposal. Waterfront Toronto believes it is important to note that collection and use of personal information would still be regulated under existing privacy and human rights laws. As described above, there are multiple pieces of provincial and federal legislation that would apply in Quayside. Sidewalk Labs has clearly acknowledged this in the MIDP. Waterfront Toronto continues to examine governance frameworks that leverage existing laws, democratic accountability and established oversight mechanisms to enhance privacy protections and digital governance, which may include intergovernmental cooperation.

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*For more information on the proposed Urban Data Trust see Volume 3, Chapter 1, page 69 and Volume 2, Chapter 5 of the MIDP.*

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### Questions to Consider – Privacy and Digital Governance

Waterfront Toronto eagerly anticipates the opportunity to discuss these questions and more with the public at our upcoming public meeting.

- Do you find the creation of the concept of “urban data” to be helpful by clarifying what data should be considered a public asset and/or subject to enhanced oversight by a data stewardship body? Or, do you think that currently recognized terms, such as personal and



non-personal information, are more helpful to establishing the stewardship model related to these different types of data?

- Do you generally support the idea of data stewardship for data collected in Quayside? Do you feel it is necessary? If so, what are your views on the model proposed by Sidewalk Labs under the name Urban Data Trust? What would you keep and/or change? What central data stewardship structure would you support to oversee compliance of all applicable laws relating to data use in the Quayside? Do you believe governments should be bound by a data steward? Do you believe business should be bound by a data steward?
- How do you feel about the creation of Responsible Data Use Guidelines, which would be enforced by the Urban Data Trust, and the application of a Responsible Data Use Assessment tool? Do you have any suggestions?
- The following funding model for a data trust: each party that desires to collect and use urban data pay an urban data collection and use administration fee to cover the costs of the Urban Data Trust. Do you agree with the model Sidewalk Labs proposes or do you have concerns? Do you have any suggestions?
- How would you envision data collected in the public realm being used for the public good? Do you think the proposals related to open data would support that?
- After reading the Draft MIDP, what digital governance concerns (if any) do you consider to remain unanswered?
  - Are there specific areas of the privacy and digital governance proposals that you believe you need additional assistance in understanding prior to being able to determine whether or not you support these elements? If yes, please provide the topics that you feel you need this additional level of information for.



# Questions / Comments

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# DISCUSSION GUIDE

Waterfront Toronto's Public Consultation on the Draft MIDP  
July 2019

## Welcome to Quayside

Waterfront Toronto has a mandate to revitalize Toronto's waterfront. One of our current projects is Quayside – a 12-acre parcel of land that sits right beside the lake at the foot of Parliament Street.

Over two years, we looked for an Innovation and Funding Partner to help us think through something special for the waterfront – something that could set precedents for building affordable, sustainable, inclusive, and prosperous communities. We selected Sidewalk Labs as that partner. Sidewalk Labs is a subsidiary of Alphabet, a company of Google. As reflected in their mission, they "seek to combine forward thinking with edge technology to radically improve urban life, in Toronto and around the world."



*seriously and we know that you are relying on us to fulfill it rigorously. We are committed to working with all of you to do exactly that."*

Steve Diamond, Chair of the Board,  
Waterfront Toronto



**WATERFRONT**Toronto

### What's happening now?

On June 17, 2019 Sidewalk Labs submitted their Master Innovation and Development Plan (MIDP) to Waterfront Toronto for our review and evaluation. We shared it with the public one week later, and now we're kicking off the first of two rounds of public consultation to seek feedback on the MIDP. This first round of consultation is focused on orienting the public to the 1,500+ page submission from Sidewalk Labs, from the perspective of Waterfront Toronto as a public steward working with the support of all three levels of government to revitalize the waterfront.

### Why consult the public?

Feedback from the public is critical to informing Waterfront Toronto's thinking about Quayside. It is our responsibility, informed by consultation with the public, technical experts, and all three levels of government to determine if the ideas in the MIDP are in the public interest and respond to the objectives for Quayside that we agreed to with Sidewalk Labs in July 2018 (as reflected in the Plan Development Agreement). This Discussion Guide is one of several ways that we are sharing information about the public consultation process.

### How do the roles of Waterfront Toronto & Sidewalk Labs differ?

It's important to know that Waterfront Toronto did not co-create the Draft MIDP. Waterfront Toronto and Sidewalk Labs worked together earlier in the process to do research, generate ideas, and consult the public. The roles of the two organizations then separated, with Waterfront Toronto focused on creating a robust framework for review and evaluation of the MIDP. Sidewalk Labs prepared and submitted the MIDP. The MIDP is subject to the approval of Waterfront Toronto's Board of Directors and Sidewalk Labs.

**[www.QuaysideTO.ca](http://www.QuaysideTO.ca)**



# Orienting yourself to the Sidewalk Labs Proposal

The Master Innovation and Development Plan proposed by Sidewalk Labs is organized into three Volumes. In the broadest terms, Volumes 1 and 2 propose plans for development and innovation (mostly things that we can see and touch). In Volume 3, Sidewalk Labs describes what they think is required to make those plans happen. There is also a fourth Overview document.



**Volume 1:**  
***The Plans***



**Volume 2:**  
***The Urban Innovations***



**Volume 3:**  
***The Partnership***

## **Proposed Plans for Toronto's Waterfront**

These two Volumes describe Sidewalk Labs' proposals for Quayside (as well as a much larger portion of the waterfront). This includes plans for:

- Development of the 12 acres of Quayside
- Development of a larger area that Sidewalk Labs calls "The River District" (153 acres)
- Social infrastructure and community facilities
- Economic development
- Urban Innovations that focus on mobility, public realm, buildings and housing, sustainability, digital
- New governance models and regulatory frameworks to support implementation of the innovations

## **Proposed Approach to Implementing those Plans**

This third Volume of the MIDP was completed most recently and focuses on how Sidewalk Labs proposes that the plans get implemented. They propose:

- Creation of a special district (190 acres in size) called the Innovative Design and Economic Acceleration District (IDEA District) that is governed by a new Public Administrator and other entities
- Roles for Sidewalk Labs (developer, advisor, tech deliverer, and provider of optional financing)
- Financial streams for the public sector related to real estate, infrastructure, and Intellectual Property
- Government commitments (including potential future investments) required and areas of necessary public policy and regulatory reform

## **Interested in reading the MIDP?**

It's available on Waterfront Toronto's website at [www.QuaysideTO.ca](http://www.QuaysideTO.ca). A hard copy has been provided to each Councillor's office at the City of Toronto, and there is also a copy for review at the following Toronto Public Library Branches: St. Lawrence, Fort York, Brentwood, Queen/Saulter, Scarborough Civic Centre, North York Central, and the Toronto Reference Library.



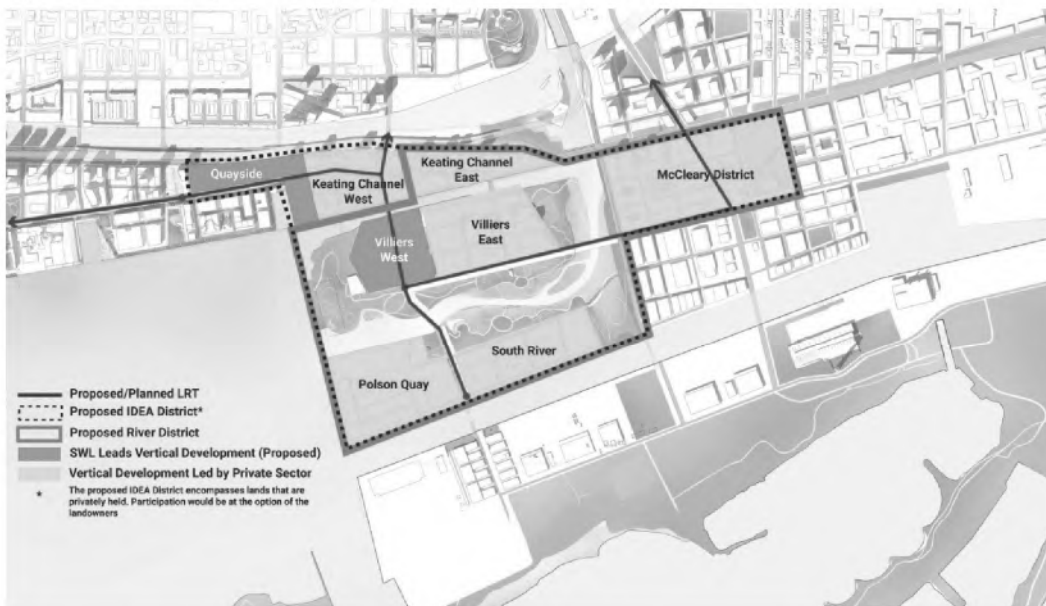
# Orienting yourself to the Waterfront Toronto Review

Over the next several months, Waterfront Toronto will be reviewing and evaluating the MIDP from Sidewalk Labs. To support the process of seeking public feedback on the MIDP, Waterfront Toronto has written a Note to Reader. It is based on an initial, high level review of the MIDP and includes reference to (and summaries of) many of Sidewalk Labs proposals. The Note to Reader is not a substitute for the MIDP.

## The Waterfront Toronto Note to Reader provides a synthesis of:

- What Waterfront Toronto asked from its Innovation and Funding Partner;
- The response from Sidewalk Labs;
- Where and how the Draft MIDP aligns with existing practices and what's new;
- Where the privatization of public assets is being proposed (if at all); and
- Financial impacts and risks.

It is available at [www.QuaysideTO.ca](http://www.QuaysideTO.ca) and at all of the locations where a hard copy of the MIDP is provided (see bottom of previous page for a list of locations).



Map of Quayside, the River District, and the IDEA District

## Early Thoughts and Questions to Consider

Based on our initial review of the MIDP, there are a number of exciting ideas that respond to challenges Toronto faces, particularly related to environmental sustainability and economic development. There are also proposals where it is clear that Waterfront Toronto and Sidewalk Labs have very different perspectives about what is required for success, for example:

- The up-front creation of an IDEA District (that covers more than the 12 acres of Quayside).
- Sidewalk Labs proposes to lead development on Quayside, with the support of local partners. Should the MIDP go forward, it should be on the basis that the Waterfront Toronto lead a competitive, public procurement process for developer(s) to partner with Waterfront Toronto and Sidewalk Labs (as our Innovation and Funding Partner)
- Sidewalk Labs' proposals require future commitments by our governments to realize project outcomes. These proposals raise significant implementation concerns and are also not commitments that Waterfront Toronto can make.
- The need for more information to determine whether initial proposals relating to data collection, data use, and digital governance are in compliance with applicable laws and respect Waterfront Toronto's digital governance principles.

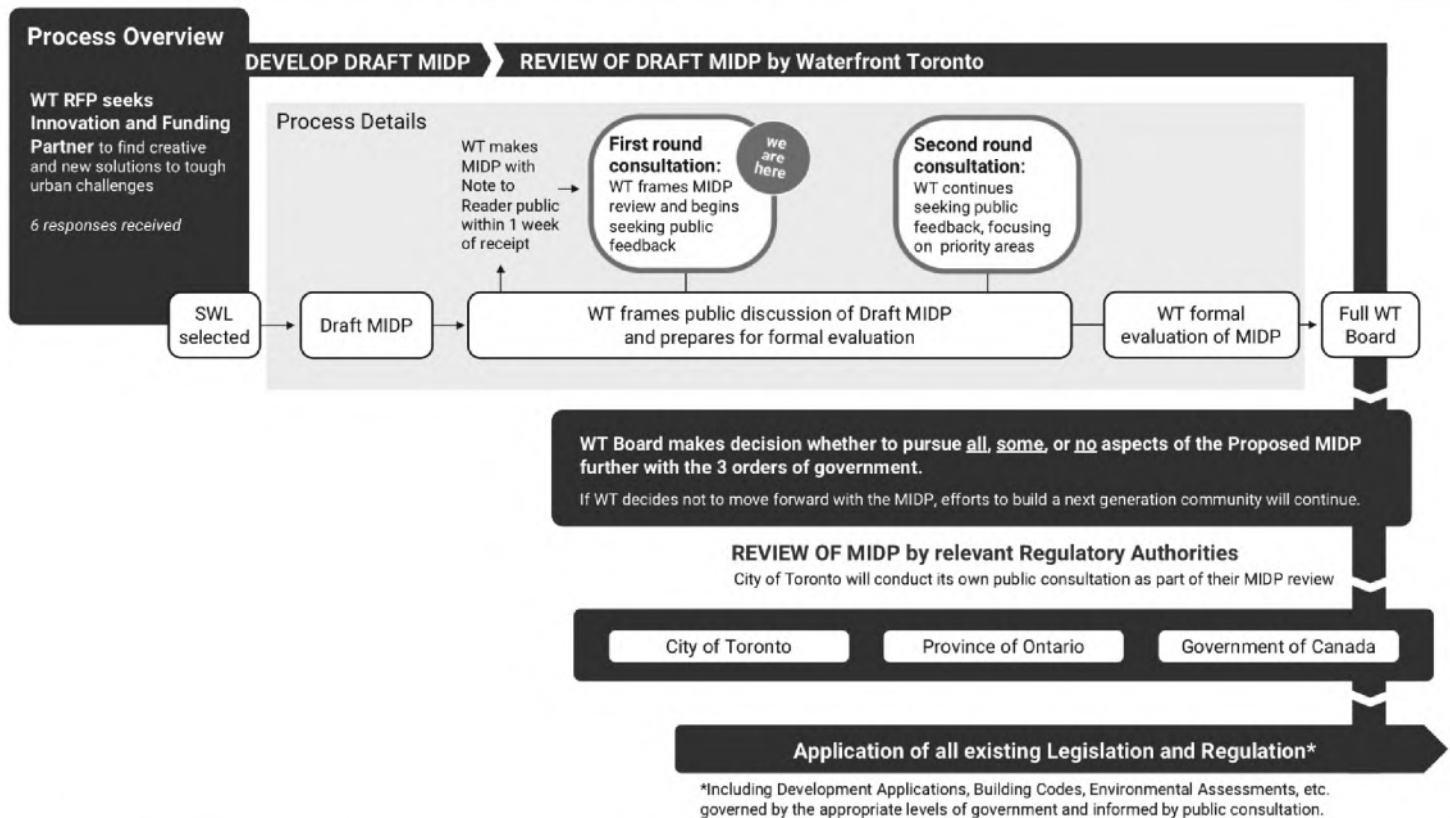
The Note to Reader reflects these priority considerations and also poses both general and specific questions for the public to consider regarding the MIDP.



# We want to hear from you

Further discussion of the benefits and challenges associated with the MIDP will be the focus of the next several months of public consultation and technical work that Waterfront Toronto and its advisors will complete. All of this work will inform a decision by Waterfront Toronto's Board of Directors on whether they are interested in moving forward with the MIDP and Sidewalk Labs, and if so, how.

The graphic below illustrates the process we'll be following:



## Many ways to participate:

Toronto Public Library Program (Drop-In Sessions)	<p>Mon, July 8 (North York Central Library, 2:30-4pm)</p> <p>Tues, July 9 (Scarborough Civic Centre, 4:30-6:00pm)</p> <p>Wed, July 10 (Fort York Public Library, 6:30-8pm)</p> <p>Thurs, July 11 (Brentwood Library, 2:30-4pm)</p> <p>Thurs, July 11 (Queen/Saulter Branch, 6:30-8pm)</p> <p>Thurs, July 18 (St. Lawrence Branch, 6:30-8pm)</p> <p>Thurs, July 25 (Toronto Reference Library, 6:30 – 8:00pm)</p>
Four identical public meetings	<p>Mon, July 15 (North York Civic Centre, 6-9pm)</p> <p>Wed, July 17 (Radisson Admiral Hotel, 6-9m)</p> <p>Sat, July 20 (George Brown Waterfront Campus, 9am-12pm)</p> <p>Tuesday, July 23 (Chestnut Residences &amp; Conference Centre, 6-9pm)</p>
Online survey	July 10 – July 31 at <a href="http://www.QuaysideTO.ca">www.QuaysideTO.ca</a>
Written submissions to Waterfront Toronto	For feedback to be considered by Waterfront Toronto prior to the second round of public consultation, it must be received by July 31, 2019. Please send it to <a href="mailto:quayside@waterfronttoronto.ca">quayside@waterfronttoronto.ca</a>

**The deadline for all feedback is July 31, 2019.**



# Welcome to Quayside

## What is Quayside?

Waterfront Toronto has a mandate to revitalize Toronto's waterfront. One of our current projects is Quayside – a 12-acre parcel of land that sits right beside the lake at the foot of Parliament Street.

Over two years ago we undertook a competitive process to look for an Innovation and Funding Partner to help us think through something special for this site – something that could set precedents for building affordable, sustainable, inclusive, and prosperous communities.

We selected Sidewalk Labs as that partner. Sidewalk Labs is a subsidiary of Alphabet Inc. and a sister-company of Google. As reflected in their mission, they “seek to combine forward thinking-urban design and cutting-edge technology to radically improve urban life, in Toronto and around the world”.

## What's happening now?

On June 17, 2019 Sidewalk Labs submitted their Draft Master Innovation and Development Plan (MIDP) to Waterfront Toronto for our review and evaluation.

We shared it with the public one week later, and now we're kicking off the first of two rounds of public consultation to seek feedback on the MIDP.

This first round of consultation is focused on orienting the public to the 1,500+ page submission from Sidewalk Labs, from the perspective of Waterfront Toronto as a public steward working with the support of all three levels of government to revitalize the waterfront.

## How do the roles of Waterfront Toronto & Sidewalk Labs differ?

It's important to know that Waterfront Toronto did not co-create the Draft MIDP. Waterfront Toronto and Sidewalk Labs worked together earlier in the process to do research, generate ideas, and consult the public.

The roles of the two organizations then separated, with Waterfront Toronto focused on creating a robust framework for review and evaluation of the MIDP. Sidewalk Labs prepared and submitted the MIDP.

The MIDP is ultimately subject to the approval of Waterfront Toronto's Board of Directors and Sidewalk Labs.

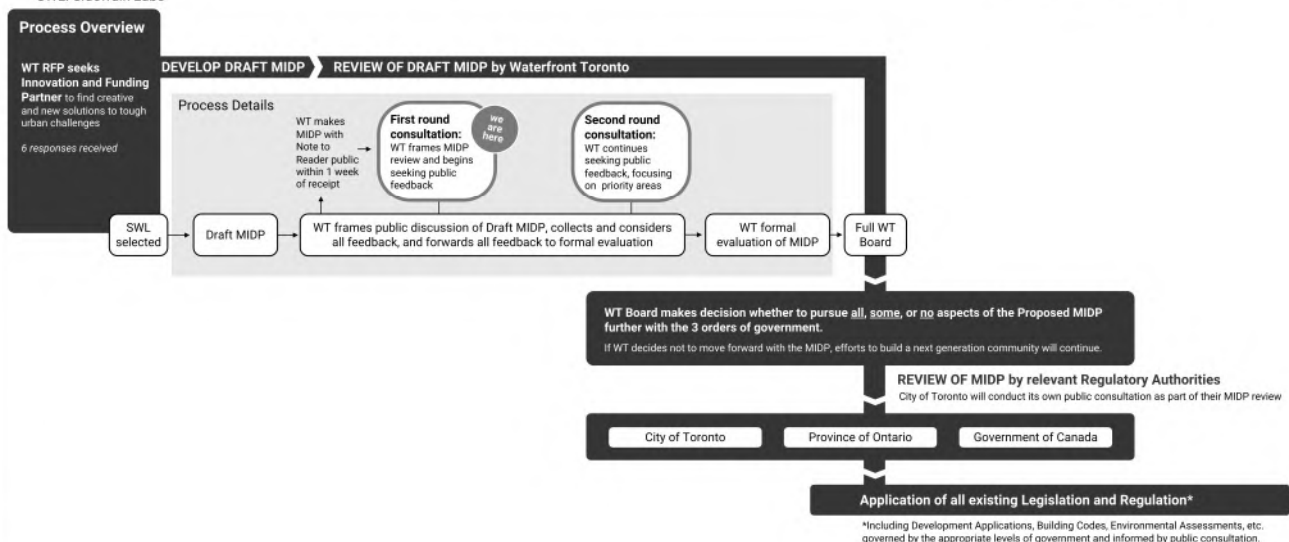
## Why are we consulting the public?

Feedback from the public is critical to informing Waterfront Toronto's thinking about Quayside. It is our responsibility – informed by consultation with the public, technical experts, and all three levels of government – to determine if the ideas in the MIDP are in the public interest and respond to the objectives for Quayside that we agreed to with Sidewalk Labs in July 2018 (as reflected in the Plan Development Agreement).

This consultation is one of several ways we are sharing information about the Draft MIDP and seeking public feedback. All of this work will inform a decision by Waterfront Toronto's Board of Directors on whether, or how, to move forward with the MIDP and Sidewalk Labs.

The graphic below illustrates the process we'll be following:

WT: Waterfront Toronto  
SWL: Sidewalk Labs



For more information,  
visit the project  
website at:  
[www.QuaysideTO.ca](http://www.QuaysideTO.ca)

## How to get involved

There are many ways to participate, including:

### Toronto Public Library Program

Mon, July 8 - 2:30 to 4 pm: North York Central Library  
Tues, July 9 - 4:30 to 6 pm: Scarborough Civic Centre  
Wed, July 10 - 6:30 to 8 pm: Fort York Public Library  
Thurs, July 11 - 2:30 to 4 pm: Brentwood Library  
Thurs, July 11 - 6:30 to 8 pm: Queen/Saulter Branch  
Thurs, July 18 - 6:30 to 8 pm: St. Lawrence Branch  
Thurs, July 25 - 6:30 to 8 pm: Toronto Reference Library

### Four identical public meetings

Mon, July 15 - 6 pm to 9 pm: North York Civic Centre  
Wed, July 17 - 6 pm to 9 pm: Radisson Admiral Hotel  
Sat, July 20 - 9 am to 12 pm: George Brown Waterfront Campus  
Tues, July 23 - 6 pm to 9 pm: Chestnut Residences & Conference Centre

### Written submissions to Waterfront Toronto

For feedback to be considered by Waterfront Toronto prior to the second round of public consultation, it must be received by July 31, 2019. Please send it to [quayside@waterfronttoronto.ca](mailto:quayside@waterfronttoronto.ca)

**Online survey** from July 23 to July 31 at  
[www.QuaysideTO.ca](http://www.QuaysideTO.ca)



# The Waterfront Toronto Draft MIDP Review

## The Sidewalk Labs Proposal

The Master Innovation and Development Plan proposed by Sidewalk Labs is organized into three Volumes. In the broadest terms, Volumes 1 and 2 propose plans for development and innovation (mostly things that we can see and touch). In Volume 3, Sidewalk Labs describes what they think is required to make those plans happen. There is also a fourth Overview document.



**Volume 1:**  
*The Plans*



**Volume 2:**  
*The Urban Innovations*



**Volume 3:**  
*The Partnership*

### Proposed Plans for Toronto's Waterfront

These two Volumes describe Sidewalk Labs' proposals for Quayside (as well as a much larger portion of the waterfront). This includes plans for:

- Development of the 12 acres of Quayside
- Development of a larger area that Sidewalk Labs called "The River District" (153 acres)
- Social infrastructure and community facilities
- Economic development
- Urban Innovations that focus on mobility, public realm, buildings and housing, sustainability, digital

### Proposed Approach to Implementing those Plans

This third Volume of the MIDP was completed most recently and focuses on how Sidewalk Labs proposes that the plans get implemented. They propose:

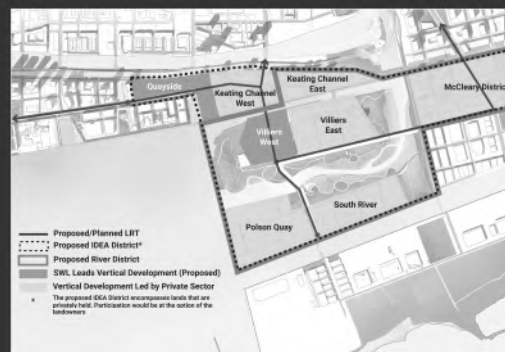
- Creation of a special district (190 acres in size) called the Innovative Design and Economic Acceleration District (IDEA District) that is governed by a new Public Administrator and other entities
- Roles for Sidewalk Labs (developer, advisor, tech deliverer, and provider of optional financing)
- Financial streams for the public sector related to real estate, infrastructure, and Intellectual Property

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Government commitments (including potential future investments) required and areas of necessary public policy and regulatory reform

## Waterfront Toronto Note to Reader

Over the next several months, Waterfront Toronto will be reviewing and evaluating the MIDP from Sidewalk Labs. To support the process of seeking public feedback on the MIDP, Waterfront Toronto has written a Note to Reader. It is based on an initial, high level review of the MIDP and includes reference to (and summaries of) many of Sidewalk Labs proposals. The Note to Reader is not a substitute for the MIDP.



### The Waterfront Toronto Note to Reader provides a synthesis of:

- What Waterfront Toronto asked from its Innovation and Funding Partner;
- The response from Sidewalk Labs;
- Where and how the Draft MIDP aligns with existing practices and what's new;
- Where the privatization of public assets is being proposed (if at all); and
- Financial impacts and risks.

### Early Thoughts and Questions to Consider

Based on our initial review of the MIDP, there are a number of exciting ideas that respond to challenges Toronto faces, particularly related to environmental sustainability and economic development. There are also proposals where it is clear that Waterfront Toronto and Sidewalk Labs have different perspectives about what is required for success, for example:

- Up-front creation of an IDEA District (that covers a much more than the 12 acres)
- Sidewalk Labs proposes to lead development on Quayside, with the support of local partners. Should the MIDP go forward, it should be on the basis that Waterfront Toronto lead a competitive, public procurement process for developer(s) to partner with Waterfront Toronto and Sidewalk Labs (as our Innovation and Funding Partner)
- Sidewalk Labs' proposals require future commitments by our governments to realize project outcomes. These proposals raise significant implementation concerns and are also not commitments that Waterfront Toronto can make
- The need for more information to determine whether the initial proposals relating to data collection, data use, and digital governance are in compliance with applicable laws and respect Waterfront Toronto's digital governance principles

The Note to Reader reflects these priority considerations, and also poses both general and specific questions for the public to consider regarding the MIDP.



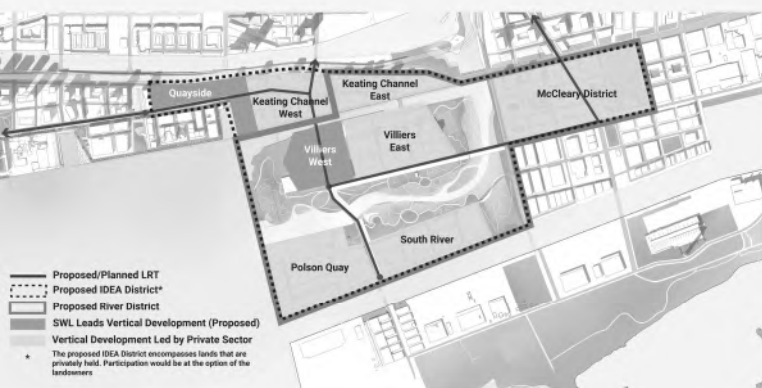
# Volume 1 The Plan: The Quayside and River District Plans

## Sidewalk Labs' Proposal

Volume 1 of the MIDP presents development plans at two scales: Quayside and the River District.



Sidewalk Labs' Illustration of Quayside



Map of Quayside and the proposed River District and IDEA District

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## Waterfront Toronto's Note to Reader Review

### The Quayside Plan

Quayside falls across the boundary of two precincts, East Bayfront and Keating Channel, which are subject to City-approved precinct plans. The precinct plans call for mixed-use development, comprising 75% residential and 25% non-residential land use mix. The precinct plans call for an elementary school, a park adjacent to the Victory Soya Mills Silos and the continuation of the water's edge promenade within the Quayside site. Additionally, the precinct plans contemplate a dedicated LRT on Queens Quay.

Waterfront Toronto has reviewed the MIDP's fit with the precinct plans and existing zoning and notes the following:

- **Density:** the proposed density is less than what was imagined for both precinct plans and existing zoning.
- **Height:** building heights vary—typically lower—from what was imagined in both precinct plans.
- **Massing:** building massing in the proposal is different from the massing and built form direction in the precinct plans.
- **Mix of Uses:** the proposal presents a higher amount of non-residential (including retail, commercial, social infrastructure and production uses) than the precinct plans.
- **Community Facilities:** the precinct plans set aside space for an elementary school. Sidewalk Labs has allotted space for this school within Quayside. Additional community facilities space is proposed by Sidewalk Labs.
- **Connectivity:** connections through the site are generally consistent with the precinct plans, however, the proposed removal of vehicular traffic on Parliament Street between Lake Shore Boulevard East and Queens Quay would alter the circulation of buses and automobiles through the site.
- **Queens Quay:** the public right of way design, mode share split and space allocation is generally consistent with the most recent East Bayfront Transit Environmental Assessment, with the exception of minor modifications.
- **Parking:** is significantly reduced from the levels expected in the current zoning by-law. Offsite parking, not envisioned in current precinct or secondary plans, is included in the proposal concept.
- **Ground Floor Animation:** precinct plans require buildings to incorporate ground-related commercial or retail uses, particularly on Queens Quay. Sidewalk Labs also proposes retail along an interior laneway.
- **Water's Edge:** the proposal is generally consistent with the vision in the precinct plans to better connect people to the water's edge, however the proposed dimensions of the water's edge promenade must be further explored.

### The River District Plan

The "River District" is covered by the Keating Channel and Villiers Island Precinct Plans as well as the Port Lands Planning Framework. The River District proposal is not as detailed as the proposal for Quayside, and as such, Waterfront Toronto's review of the development plan will be limited to a higher-level analysis.

Sidewalk Labs proposes locating the Canadian Google Headquarters and Urban Innovation Institute on the western portion of Villiers Island which generally aligns with the Villiers Island Precinct Plan objective for a "catalytic" use.

## Waterfront Toronto's Questions for You

1. Do you think that the proposed Development Plan for Quayside and/or the River District would create a complete community and a vibrant neighbourhood? Is this a place that you would want to live? Why or why not?
2. Do you think that variances between the Draft MIDP and the City-approved precinct plans are problematic and, if so, which ones?
3. If you could change elements of the proposed plans for Quayside and the River District, what would you change and why?

Please place a sticky note in the box. You can also complete a feedback form or take the online survey.



# Volume 1 The Plan: Social Infrastructure



Social Infrastructure is often defined as a collection of facilities and organizations that support residents and communities. Sidewalk Labs builds on this definition, including in their proposal physical spaces, programming and service delivery innovations, and digital tools.

## Sidewalk Labs' Proposal

- Three physical spaces that can be classified as community facilities:
  - A Community Hub called the "Care Collective" to provide space for traditional health services as well as other community supports.
  - A "Civic Assembly" to provide space for community programs, civic engagement and cultural events, similar to a community centre. It would also host a proposed "Tech-bar" that offers support for any digital needs within the neighbourhood.
  - An Elementary School: As identified in the precinct plan, there is space set aside for a Toronto District School Board elementary school and a childcare centre.
- A set of digital tools to complement the social infrastructure and public spaces, including:
  - *Collab*: to gather feedback from community members about public space programming.
  - *Seed*: Space to facilitate leasing and co-tenancy options in buildings.

## Other elements of Sidewalk Labs' Proposals

- There are no anticipated privatization of public roles or assets in the Sidewalk Labs proposal for Social Infrastructure. All existing roles for governments would be unaffected.
- Sidewalk Labs aspires for more digital tools beyond Collab and Seed Space to be developed by the community and through future partnerships.

## Waterfront Toronto's Note to Reader Review

- Sidewalk Labs has proposed more community facility space than called for in the East Bayfront Precinct Plan. This space is proposed to be funded through City fees and development charges (in line with existing practices). An ongoing operational funding plan is not identified.
- There is no anticipated privatization of public roles or assets in the Sidewalk Labs proposal for Social Infrastructure. All existing roles for governments would be unaffected.

## Waterfront Toronto's Questions for You

1. How receptive are you to exploring this proposal from SWL? Why?
2. What do you see as the risks with Sidewalk Labs' Social Infrastructure Proposals
3. Under what conditions, if any, would you want to see Waterfront Toronto pursue these proposals further?

*Please place a sticky note in the box. You can also complete a feedback form or take the online survey.*



# Volume 1 The Plan: Economic Development

## What Waterfront Toronto asked for:

- A plan focused on the urban innovation sector—including cleantech, building materials, and broader urban innovation related sectors—that expands the existing waterfront innovation corridor.

## Sidewalk Labs' Proposal

- The creation of an “urban innovation cluster” along the waterfront.
- Putting forward \$10 million in initial financing for an independent, non-profit Urban Innovation Institute. This institute would support both commercial product development and applied research.
- Putting forward \$10 million in seed funding for an early-stage urban innovation venture fund focused on local start ups. Sidewalk Labs has indicated that these initiatives, together with the Google Canadian Headquarters, could create the foundations for an urban innovation cluster.

## Other elements of Sidewalk Labs' Proposals

- Sidewalk Labs asserts their proposal could facilitate the acceleration of development in the Port Lands by 10 years and Sidewalk Labs has indicated that it would be possible to complete 77 hectares (190 acres) of development by 2040.
- The economic development outcomes in the Draft MIDP assumes accelerated public investment in the necessary municipal infrastructure (including the Waterfront Light Rail Transit line). Sidewalk Labs has proposed optional upfront financing to ensure that this infrastructure is built to meet the proposed development schedule.



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**The proposed  
innovation campus  
within the broader  
IDEA District**

The campus for urban innovation  
is located in the IDEA District  
between Quayside and the River  
District and sparking a new network  
of neighbourhoods.

--- IDEA District  
--- River District  
■ Phase 1: Quayside  
■ Phase 2: River District  
■ Optional participation in Phase 2

Sidewalk Labs' map of proposed innovation campus

## Waterfront Toronto's Note to Reader Review

- The accelerated Port Lands development timeline would require public investment in municipal infrastructure that is greater than currently planned.
- If the optional financing proposed by Sidewalk Labs is accepted, one method of repayment could be that municipal proceeds—such as development charges, incremental property tax and incremental land value—that are generated in the project area be used for repayment. Sidewalk Labs asserts that in this scenario, the revenues to government would be greater than at the base-case. This is only one idea around municipal infrastructure financing and other options could be explored.

## Early thinking on risks to consider

- Sidewalk Labs' projected development timeline and their predicted government revenues associated with this are contingent on factors outside of their control.
- Sidewalk Labs' relatively modest initial seed capital for the Innovation Venture Capital Fund creates a dependence on raising additional funds and uncertainty on whether the desired positive impact on an innovation ecosystem will be achieved. A similar risk pertains to the modest initial seed capital for the Urban Innovation Institute.

## Waterfront Toronto's Questions for You

1. How receptive are you to exploring this proposal from SWL? Why?
2. What do you see as the risks with Sidewalk Labs' Economic Development Proposals
3. Under what conditions, if any, would you want to see Waterfront Toronto pursue these proposals further?

Please place a sticky note in the box. You can also complete a feedback form or take the online survey.



# Volume 2 Urban Innovations: Mobility

## What Waterfront Toronto asked for:

- Convenient and efficient transportation options for Quayside that could enable low-carbon and affordable mobility solutions
- Innovative funding strategies that could leverage public and private funding to secure an implementable model for light rail transit along the eastern waterfront

## Sidewalk Labs' Proposal

- Reduce the need to own a car by providing safe, connected and affordable options for every trip
- "People first" streets that include bicycle paths and prioritize sustainable modes.
- Adaptable and curbless streets that include a "Dynamic Curb" to optimize the use of road space by expanding and contracting pick-up and drop-off zones to enable pedestrian use based on demand.
- Pricing incentives and active management of the mobility network with pricing applied in real time to manage demand.
- Integration of travel modes and optional app-based mobility as a service packages
- Underground tunnels and delivery robots for freight and garbage
- Heated pavement to melt snow and ice
- Infrastructure for electric vehicles



An illustration of dynamic curbs from Sidewalk Labs



A Sidewalk Labs illustration of a reconstructed Cherry Street underpass featuring decorative lighting, acoustic panels, bike lanes, and tree-lined walkways

## Other elements of Sidewalk Labs' Proposals

- Establish a new public-sector entity called the Waterfront Transportation Management Association (WTMA) that would: collect revenues, manage a not-for-profit budget, set fees for parking and curb pricing, and invest in capital improvements and operations of mobility systems. The WTMA could include a steering committee with governments, public agencies, and private stakeholders
  - Sidewalk Labs says they will not move forward with the development of Quayside without
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- and for financing the LRT through a private consortium

## Waterfront Toronto's Note to Reader Review

- Sidewalk Labs' proposed mobility initiatives align with Waterfront Toronto's work to date, including the revitalization of Queens Quay and the Cherry Street LRT extension
- The establishment of the WTMA, and many of these mobility initiatives, would require independent regulatory approval from municipal or provincial authorities (for example, curbside pricing for rideshare pick-up, and road pricing for autonomous vehicles)
- Sidewalk Labs proposes that the WTMA collect revenues and manage a not-for-profit budget, including setting fees for parking and curb pricing

## Early thinking on risks to consider:

- Delayed uptake of autonomous vehicles, lesser adoption of shared use of ride hailing than anticipated
- Complexity of establishing the WTMA and associated financial considerations
- Privacy and data governance concerns associated with roadside data collection and mobility-as-a-service tools

## Waterfront Toronto's Questions for You

1. How receptive are you to exploring this proposal from SWL? Why?
2. What do you see as the risks with Sidewalk Labs' Mobility proposals?
3. Under what conditions, if any, would you want to see Waterfront Toronto pursue these proposals further?

Please place a sticky note in the box. You can also complete a feedback form or take the online survey.



# Volume 2 Urban Innovations: Public Realm

## What Waterfront Toronto asked for:

- New methods and strategies for enhancing the public realm.
- Potential benefits technology could bring to augment public spaces and improve the quality of life.

## Sidewalk Labs' Proposal

- A system of open spaces coupled with digital tools, including a platform enabling people to reserve public areas.
- To provide a flexible interior space on the ground floor of buildings, called "Stoa". Its leasing and operations would be managed through a digital tool called Seed Space.
- To map underground infrastructure in 3D to help with maintenance and repairs.
- A heated, green, and lighted paving system that could melt snow, is permeable, and has LED lighting to provide wayfinding.
- Adaptable and curb less streets which include a dynamic curb that adjusts the pick-up/drop-off zone to enable pedestrian use based on demand.
- Outdoor comfort system to increase usability of public realm in shoulder seasons.

## Other elements of Sidewalk Labs' Proposals

- Sidewalk Labs proposes establishing a new, independent, not-for-profit organization called the Open Space Alliance (OSA) to assume responsibility for operations and maintenance of all public realm.
- The proposal for an OSA sees funding coming from the City of Toronto for park operations, maintenance, fees from ground floor tenants, sponsorship revenues, and concessions from events. The OSA's proposed roles and responsibilities would replace certain roles of the City of Toronto, including operations and maintenance.



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Rendering from Sidewalk Labs

## Waterfront Toronto's Note to Reader Review

- Sidewalk Labs proposes technology-based tools and space management concepts that would extend beyond typical practices on Toronto's waterfront.
- The Sidewalk Labs proposal follows Waterfront Toronto's current approach to designing and constructing streets that connect neighbourhoods and destinations along the waterfront, create pedestrian and cycling-friendly trails, and encourage activation to create vibrant neighbourhoods. The scale and proposed approach to realizing these outcomes, however, deviates from approved plans. For example, Waterfront Toronto asked for urban and building design to account for different seasons such as all-weather colonnades; Sidewalk Labs has proposed strategies such as awning-style 'raincoats' attached to buildings and structures to block wind and cover open spaces.

## Early thinking on risks to consider

- Technical viability, approvability, effectiveness, and desirability of outdoor comfort proposals.
- Complexity of establishing the OSA and bridging funding gap.
- Compliance with the Accessibility for Ontarians with Disabilities Act.
- Attractiveness of semi-conditioned Stoa spaces in winter.
- Privacy and data governance concerns with the collection of data in public spaces.

## Waterfront Toronto's Questions for You

1. How receptive are you to exploring this proposal from SWL? Why?
2. What do you see as the risks with Sidewalk Labs' Public Realm Proposals?
3. Under what conditions, if any, would you want to see Waterfront Toronto pursue these proposals further?

Please place a sticky note in the box. You can also complete a feedback form or take the online survey.



# Volume 2 Urban Innovations: Buildings and Housing

## What Waterfront Toronto asked for:

- Innovative building technologies, systems, materials and design approaches that could set the global standard for low energy design and high performance.
- A neighbourhood that could respond to current and future trends, including adaptive and inclusive places that respond to changing needs, while continuing to advance a sustainable built environment that exhibits design excellence.
- Exceed the Waterfront Toronto requirement to set aside sufficient land to accommodate 20% of residential units as Affordable Rental Housing, in perpetuity.
- A viable, replicable, and implementable delivery model and financing strategy for additional mixed-income housing that requires minimal government funding.

## Sidewalk Labs' Proposal

- A mixed-use neighbourhood constructed with mass timber buildings, which feature highly adaptable loft spaces with moveable walls to enable flexibility and adaptability over time.
- Technologies to enable buildings to be adaptable and flexible, including low-voltage DC power systems, mist-based sprinkler systems, and real-time building performance monitoring.
- 40% below-market housing program with varied occupancy types, including an Affordable Rental Housing component comprised of smaller, efficient units.
- 50/50 split between rental housing and ownership, including: 20% affordable housing rental (with 5% deeply affordable), 15% mid-range rental units, and 5% for a new hybrid ownership/rental occupancy type called "Shared-Equity Housing," which would allow residents to own a percentage of their unit and pay rent on the balance.

## Other elements of Sidewalk Labs' Proposals

- Investment in a mass timber factory in Ontario if there is sufficient demand.
- Contribution of CAD\$77 million to support creating the below-market housing program at Quayside.
- Establishment of a new public-private financing entity to administer below-market housing, called the Waterfront Housing Trust (WHT).
- Three sources of funding to support affordable housing:
  - A 1% market condo re-sale fee, with the funds going to the WHT
  - Smaller, more efficient housing units, referred to as Affordability by Design. A smaller unit size would allow for a greater number of lower-cost units within the same building footprint.
  - A mass timber supply chain and digital management system (that Sidewalk Labs asserts would add value to public real estate and reduce the construction time and higher project certainty for developers).

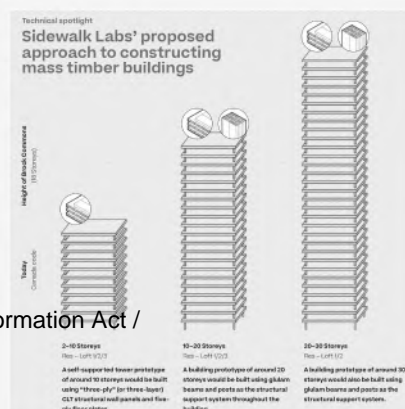


Illustration from Sidewalk Labs

## Waterfront Toronto's Note to Reader Review

- Many aspects of Sidewalk Labs' proposal are consistent with Waterfront Toronto's existing practices for delivering mixed income neighbourhoods that feature design excellence. This includes a focus on high performance buildings, as well as a commitment to ensuring that buildings are flexible for future uses, as outlined in Waterfront Toronto's current Minimum Green Building Requirements.
- Sidewalk Labs indicates amendments to existing regulatory standards would be required, such as changes to height restrictions on wood buildings in the Ontario Building Code.
- There is no anticipated privatization of public roles or assets in the Sidewalk Labs proposals for buildings and housing.
- Sidewalk Labs proposes a variety of affordable rental housing options, contributing to Waterfront Toronto's approach to building complete communities.

## Early thinking on risks to consider

- Ability to deliver a 30 storey tall timber building and the complexity of obtaining the necessary approvals to do so.
- The viability of new construction methodologies leading to reduced construction times and the mechanism by which this leads to a reduction in the cost of housing.
- Reliance on public funding programs that may not be offered throughout the entirety of the project timelines.

## Waterfront Toronto's Questions for You

1. How receptive are you to exploring this proposal from SWL? Why?
2. What do you see as the risks with Sidewalk Labs' Building and Housing proposals?
3. Under what conditions, if any, would you want to see Waterfront Toronto pursue these proposals further?

Please place a sticky note in the box. You can also complete a feedback form or take the online survey.



# Volume 2 Urban Innovations: Sustainability

## What Waterfront Toronto asked for:

- A new model for urban development that could encourage market transformation towards climate-positive city building
- Pragmatic solutions to reducing greenhouse gas emissions

## Sidewalk Labs' Proposal

- The use of highly insulated and airtight buildings supplied with renewable energy.
- Active monitoring and management of energy consumption in buildings, including using automatic schedulers to control blinds, lighting, and other systems.
- A transportation system that reduces the use of personal automobiles.
- Advanced systems to manage stormwater before entering municipal sewers.
- A vacuum waste system to decrease solid waste sent to landfill (paired with digital tools to encourage waste reduction and better sorting).
- To capture sewer heat from Ashbridges Bay Wastewater Treatment Plant to heat buildings with fossil fuels and export excess waste heat to nearby neighbourhoods.

## Other elements of Sidewalk Labs' Proposals

- Sidewalk Labs indicates its strategies would reduce per capita GHG emissions by 85% at Quayside compared to the Toronto average and that these emissions could be reduced a further 4% if extended to the IDEA District.
- The creation of a new management entity called the Waterfront Sustainability Association (WSA) that would enforce service contracts with operators of sustainability systems. Some of the proposed systems are currently regulated (e.g. electricity distribution, stormwater management) while some are not (solid waste collection from commercial and multi-residential buildings) and none are typically administered by a district authority.
- There is no anticipated privatization of public roles or assets in the Sidewalk Labs proposals for Sustainability.
- Sidewalk Labs proposes they lead the preliminary design of these advanced systems and subsequently undertake competitive procurement to solicit private third-party operators.

## Waterfront Toronto's Note to Reader Review

- Applying exemplary sustainability standards for buildings on public land is consistent with Waterfront Toronto's Minimum Green Building Requirements, in effect since 2006.
- Sidewalk Labs proposes that these standards be updated to include Passive House energy targets, limits on greenhouse gas intensity, use of active energy management tools, use of sustainable materials, as well as obligations to connect to thermal and electrical grids to access low-carbon energy. These proposals are ambitious and well-aligned with existing practices.

## Early thinking on risks to consider

- Increased cost of infrastructure could affect the value of public lands and result in lower revenues to governments on the sale of those lands, in line with Waterfront Toronto's business-as-usual approach.
- Feasibility of capturing Ashbridges Bay Wastewater Treatment Plant waste heat.
- Privacy implications of home automation and monitoring technologies.
- Governance complexities of the proposed Waterfront Sustainability Association.

## Waterfront Toronto's Questions for You

1. How receptive are you to exploring this proposal from SWL? Why?
2. What do you see as the risks with Sidewalk Labs' Sustainability proposals?
3. Under what conditions, if any, would you want to see Waterfront Toronto pursue these proposals further?

Please place a sticky note in the box. You can also complete a feedback form or take the online survey.

## Explainer: How the smart disposal chain works



Sidewalk Labs' Concept for Smart Disposal



# Volume 2 Urban Innovations: Digital Innovation

## What Waterfront Toronto asked for:

- World-class digital infrastructure that advances sustainability, improved mobility, and economic development and supports data-informed decision-making.

## Sidewalk Labs' Proposal

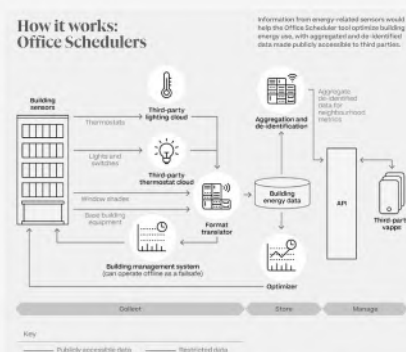
- Ubiquitous internet connectivity including WiFi access throughout the neighbourhood, and the ability for residents, workers and visitors to securely remain connected to their home or office network at any location using "software-defined networking."
- Use of "Super-PON (Passive Optical Network)" technology to create higher fibre optic internet bandwidth.
- To deploy a standardized mount (an "urban USB"), called Koala or a Koala standardized mount, on street fixtures like light poles that would allow sensors and devices to be installed and connected to power and internet.
- A decentralized digital credential system to allow individuals to be identified with minimal necessary information.

## Other elements of Sidewalk Labs' Proposals

- There is no privatization of public assets or roles explicitly proposed, though this may occur if: (i) Sidewalk Labs retains an operational interest in Koala mounts, rather than selling them outright; and/or (ii) a decentralized credential system encourages or promotes reliance on privately-issued, rather than government-issued, credentials.
- Proposed solutions are intended to be complementary to, and not exclusive of, existing practices.



Sidewalk Lab's Illustration of a Koala Mount



Sidewalk Lab's Office Schedulers Concept

## Waterfront Toronto's Note to Reader Review

- The Sidewalk Labs proposal primarily sets out potential updates and/or improvements to existing practices (for example internet access, sensor installation, proving a credential), as opposed to net-new practices. Each of these proposals is presented as being complementary to, not exclusive of, existing practices.
- Since 2008, Waterfront Toronto has had an agreement with Beanfield Metroconnect as the non-exclusive provider for connectivity in all new neighbourhoods. Beanfield is obligated to maintain the network's service among the best in the world for at least 10 years after the completion of the final building in the waterfront. Sidewalk Labs would be obligated to work with Beanfield Metroconnect in the provision of its ubiquitous network connectivity.

## Early thinking on risks to consider

- Reliance on third party decisions (such to create Koala-compatible devices or integrate with a digital credential system) to achieve benefits.
- Potential creation of a preferential environment for vendors who have partnerships or capacity to create Koala-compatible devices or integrate with credential system.
- Potential that a bad actor could gain access to data flowing through Koala mounts or prevent public realm data from being shared in an open, non-discriminatory manner.
- Potential that reducing the burden of installing devices that collect personal information could lead to increased surveillance.
- Potential that Koala mounts or other Sidewalk Labs-installed technology could be a target for malicious activity that disrupts infrastructure.

## Waterfront Toronto's Questions for You

1. How receptive are you to exploring this proposal from SWL? Why?
2. What do you see as the risks with Sidewalk Labs' Digital Innovation proposals?
3. Under what conditions, if any, would you want to see Waterfront Toronto pursue these proposals further?

Please place a sticky note in the box. You can also complete a feedback form or take the online survey.



# Volume 2 Urban Innovations: Privacy and Digital Governance



## What Waterfront Toronto asked for:

- Urban innovation, including technology-enabled, inclusive, connected communities.
- The required governance constructs to stimulate the growth of an urban innovation cluster, including legal frameworks (e.g. Intellectual Property, privacy, data sharing).

## Sidewalk Labs' Proposal

- A new data/digital governance framework that would be applied and incorporated into the development plan for the project and applied to all parties proposing to collect and use data (before the collection and use of data can begin)
- To adopt, promote, and/or develop "clear standards that make data publicly accessible, secure, and resilient" in order to:
  - allow individuals, researchers, and organizations to more easily access properly protected open data from Quayside;
  - inform decision-making;
  - promote use of this data in the creation of new or competing services; and
  - increase security and resiliency for critical infrastructure.

## Other elements of Sidewalk Labs' Proposals

- Sidewalk Labs is proposing to the creation of an Urban Data Trust: a "steward of urban data and the public interest without stifling innovation." The Urban Data Trust would oversee a responsible data use process, including by drafting "responsible data use guidelines" that are assessed using a "responsible data use assessment".
- Sidewalk proposes that all entities – including public and private sector actors – would be subject to this process and that the trust would have the authority to approve or reject any proposed collection or use of urban data. The Urban Data Trust would apply in addition to, and not replace, existing privacy laws.

## Waterfront Toronto's Note to Reader Review

- There is no concept of "urban data" in Canadian privacy law. Data that is captured in urban spaces is protected by privacy law where it can be linked to an individual (e.g. security cameras) and it falls outside of privacy law when it does not (e.g. sensors that detect the presence of a pedestrian and nothing else, or air quality readings that do not relate to any individual).
- The responsible data use process would be similar to a "privacy impact assessment" mandated for many public sector entities, which requires a full privacy analysis as part of a given project's decision-making process.
- Sidewalk Labs has initial proposals relating to data collection, data use and digital governance and it is proposing a framework that would apply to any proposals to collect and use data in the project area. It would be premature to make any evaluation of the proposed innovations as they are still under development and not yet at a stage that can be assessed for full compliance with Waterfront Toronto's principles and the governing legislative and regulatory frameworks.
- Work is ongoing at all levels of government, among academia and in civil society to address digital governance concerns. Waterfront Toronto is monitoring these developments.

## Early thinking on risks to consider

- Waterfront Toronto has undertaken a preparatory review to identify privacy risks and mitigations for all proposed innovations in the MIDP.
- Waterfront Toronto recognizes that many of the ideas proposed in the MIDP rely on technologies that are still under development. Should the project move forward to an implementation phase, additional evaluation related to privacy and/or digital governance will need to be conducted with additional detailed information.

## Waterfront Toronto's Questions for You

1. How receptive are you to exploring this proposal from SWL? Why?
2. What do you see as the risks with Sidewalk Labs' Digital Governance proposals?
3. Under what conditions, if any, would you want to see Waterfront Toronto pursue these proposals further?

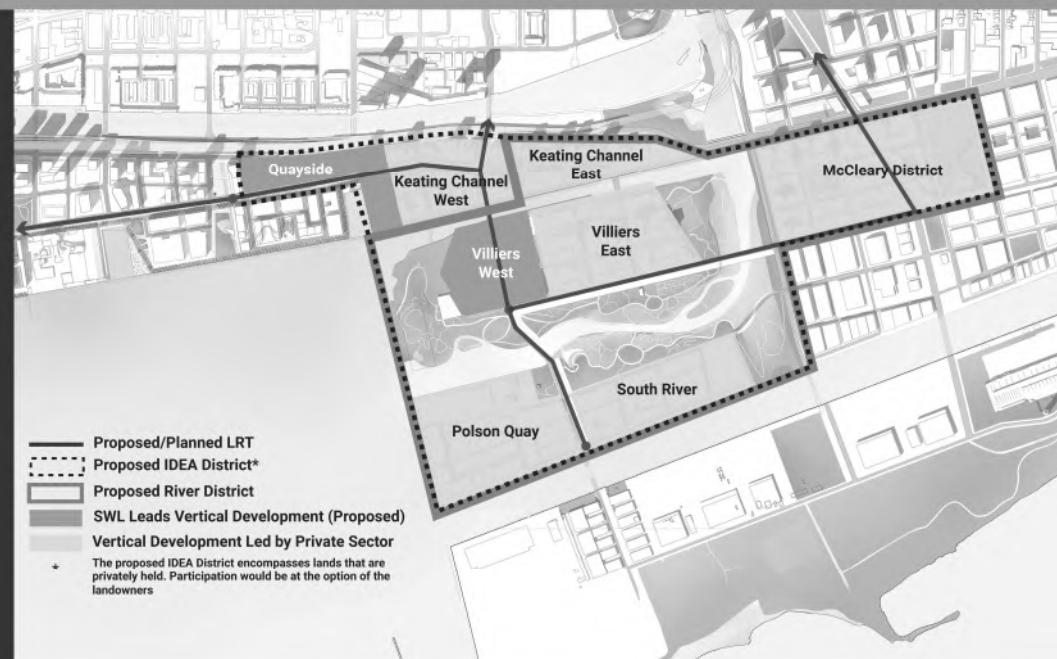
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# Volume 3 The Partnership

## Things to consider as you review and consider Volume 3:

- While Volumes 1 and 2 propose plans for development and innovation (mostly things that we can see and touch), in Volume 3 of the MIDP, Sidewalk Labs describes what they think is required to make those plans happen
- When reviewing Volume 3, it's important to note that Sidewalk Labs puts forward proposals that, if implemented, would introduce major changes to how waterfront revitalization is currently governed, regulated, and funded over a much larger scale than the 12 acres of Quayside. In the Draft MIDP, Sidewalk Labs states that these proposals are required to achieve Waterfront Toronto's priority outcomes
- While Sidewalk Labs identifies Waterfront Toronto as a potential Public Administrator, our current mandate enables us to perform some of these roles, but not all. To realize this proposal, additional public sector involvement would be needed
- Waterfront Toronto, working with the public and external experts, will be reviewing and evaluating the Draft MIDP to determine whether we agree with these proposals, and the conditions under which (if any) we would be interested in exploring them further. Any further work on Volume 3 proposals would require a decision by Waterfront Toronto to raise these proposals for consideration to all three levels of government, who would be the ultimate decision-makers
- Specifically related to the geographic scope of the proposals, Waterfront Toronto has told Sidewalk Labs that the concept of the IDEA District is premature and that Waterfront Toronto must first see its goals and objectives achieved at Quayside before deciding whether to work together in other areas. Even then, we would only move forward with the full collaboration and support of the City of Toronto, particularly where it pertains to City-owned lands



### Sidewalk Labs' Proposal

The ideas in Volume 3, including the Supplementary Tables, reflect four overarching elements of the Draft MIDP that frame and connect the entire proposal. They include:

- A proposed IDEA District that is 190 acres and which comes with a governance construct and a phased approach for its expansion that would be subject to government approvals
- Roles for Sidewalk Labs as a developer, advisor, tech deliverer, and provider of optional financing
- Financial streams for the public sector related to real estate, infrastructure, and Intellectual Property
- Government commitments (including potential future investments) required and areas of necessary public policy and regulatory reform



# Volume 3 The Partnership: The IDEA District

## Sidewalk Labs' Proposal

### The Public Administrator:

Sidewalk Labs proposes roles for the public sector in establishing and operating the IDEA District, as follows:

- Set Innovation and Development Objectives for the IDEA District
- Consistent with those objectives, impose additional requirements on developments within the IDEA District
- Determine whether new developments can access the regulatory relief
- Perform precinct and infrastructure planning for waterfront development
- Certify development and construction permit applications before submission to City agencies
- Develop a master transportation and infrastructure plan for approval by relevant City authorities, in phases, and give final approval before construction
- Receive and direct infrastructure charges for the infrastructure proposed for, or built in, the IDEA District
- Enter into and oversee agreements with developers, vendors, and partners, including Sidewalk Labs as Innovation and Funding Partner

Sidewalk Labs has also proposed several new entities that would be established within the purview of the Public Administrator:

- **Waterfront Transportation Management Association:** This division of the Public Administrator would be responsible for coordinating mobility systems within the IDEA District
- **Waterfront Sustainability Association:** This division of the Public Administrator would be responsible for administering private delivery entities and reporting on sustainability performance and GHG emissions
- **Waterfront Housing Trust:** With the Public Administrator as the sole trustee, this new entity would collect revenues

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### Questions to Consider – Public Administrator

1. What information would you need to assess whether these governance proposals would work well for Toronto?
2. What do you see as their potential benefits and risks? And under what conditions, if any, do you think they could be useful to consider?
3. How open are you to discussing changes to governance?

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### Innovation Framework:

The Innovation Framework is proposed as a package of targeted regulatory adjustments and enhanced requirements on development (the Innovation Design Standards and Guidelines) that would apply in the IDEA District. Requiring more than business-as-usual from private sector developers is a common practice for Waterfront Toronto. However, the concept of certain adjustments to regulatory requirements necessary to implement the MIDP, depending on the specific details, may be beyond Waterfront Toronto's standard practices and authority.

### Questions to Consider – Innovation Framework

1. What do you see as the potential benefits and risks of moving forward with Sidewalk Labs' proposals for targeted regulatory adjustments and enhanced requirements on development?
2. Under what conditions, if any, do you think they could be useful to consider?

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### Financing Mechanisms:

Several of the financing tools proposed by Sidewalk Labs align with existing practices, including city fee and development charge credits, and the reinvestment of land proceeds into continued revitalization in the waterfront. However, the proposed municipal and local infrastructure contributions, and the potential use of tax increment financing is beyond the authority and typical practices of Waterfront Toronto. Tax-increment financing is rarely used in Canada.

Additionally, Sidewalk Labs proposes that the IDEA District could be established through existing legislative tools, including the use of Section 28 of the Planning Act to establish a *Community Improvement Project Area*.

### Questions to Consider – Financing Mechanisms

1. What do you see as the potential benefits and risks of moving forward with financing mechanisms proposed by Sidewalk Labs?
2. Under what conditions, if any, do you think they could be useful to consider?

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# Volume 3 The Partnership: Roles for Sidewalk Labs



## What Waterfront Toronto asked for:

- In 2017, Waterfront Toronto issued a Request For Proposal (RFP) seeking an Innovation and Funding Partner. The opportunity was to help Waterfront Toronto develop a guiding vision by identifying and defining the necessary technologies, infrastructure and strategies that could lead to the delivery of a globally significant demonstration project that addresses challenges regarding Sustainability, Complete Communities, and Economic Development and Prosperity.
- Waterfront Toronto's intention was for the focus of this vision to be on Quayside, a 4.9 hectare (12 acre) testbed site at the base of Parliament Street at Queens Quay East. This testbed could then be used to inform how project successes might be scaled elsewhere on the eastern waterfront, subject to applicable government approvals and procurement processes.
- Sidewalk Labs was awarded the Innovation and Funding Partner opportunity in September 2017, and several steps in the process have unfolded since then. In brief, Waterfront Toronto and Sidewalk Labs worked together early in the process to do research, generate ideas and consult the public. The roles of the two organizations then separated, with Waterfront Toronto focused on creating a robust framework for review and evaluation of the MIDP. Sidewalk Labs prepared and submitted the Draft MIDP. The MIDP is ultimately subject to the approval of both Waterfront Toronto's Board of Directors and Sidewalk Labs.

## Sidewalk Labs' Proposal

### Role 1: Development of Real Estate and Advanced Systems

Sidewalk Labs proposes to lead the development, with a commitment to work with local partners, solely on the Quayside and Villiers West parcels (13 hectares or 32 acres) within the IDEA District.

- At Quayside, Sidewalk Labs proposes a development with cutting-edge design and technology to improve urban life and meet project objectives
- At Villiers West, they propose to continue, and amend as appropriate, the innovations at Quayside to develop an urban innovation campus anchored on an expanded Canadian headquarters for Google, an Urban Innovation Institute, and residential housing
- Sidewalk Labs proposes to serve as lead developer for advanced infrastructure systems at Quayside and Villiers West that it has identified as essential to meet the project objectives
- They emphasize that their role at Quayside and Villiers West is necessary in proving the market viability of the innovations and advanced infrastructure systems proposed in the MIDP
- Beyond Quayside and Villiers West, Sidewalk Labs proposes no role for themselves with respect to development of real estate and advanced infrastructure elsewhere in the IDEA District. Rather they propose development would be led by third party developers and operators procured by Waterfront Toronto or the Public Administrator

### Role 2: Innovation Planning, Design and Implementation

- Sidewalk Labs proposes they would provide advisory, technical, and management services to support and carry out the strategies and innovations proposed in the MIDP
- These advisory services would focus on refining the Innovation Design Standards and Guidelines as necessary throughout the development of the IDEA District

### Role 3: Technology Deployment

Sidewalk Labs proposes to deliver new technological approaches for solving urban challenges. They:

- Set forth principles for technology deployment
- Identify purposeful solutions (technology that doesn't current exist)
- Propose a profit-sharing deal with the public sector on certain technologies
- Put forth a patent pledge to allow third parties to develop solutions to build on certain of Sidewalk Labs' Canadian patents

### Role 4: Optional Enabling Infrastructure Financing

- Sidewalk Labs proposes optional financing support to accelerate the delivery of municipal and advanced infrastructure, and the Waterfront East LRT
- This proposal is at the option of Waterfront Toronto and governments to pursue

## Waterfront Toronto's Questions for You

1. What information would you need to assess whether these proposals would work well for Toronto?
2. Under what conditions, if any, do you think they could be useful to consider?
3. What advice do you have for Waterfront Toronto as they review and evaluate these overarching proposals that frame the entirety of the Draft MIDP?

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# Volume 3 The Partnership: Transaction Economics Real Estate



## What Waterfront Toronto asked for:

Instead of seeking a traditional real estate developer, Waterfront Toronto's RFP sought an Innovation and Funding Partner that would help to create a vision and business model for a transformational, mixed-use project.

### Sidewalk Labs' Proposal

- Sidewalk Labs is proposing the lands in Quayside and Villiers West be sold or leased directly to them with Sidewalk Labs acting as the lead developer, in partnership with other developers and investors
- In the MIDP Sidewalk Labs outlines three scenarios for calculating the land value:
  1. "Highest and best use", which is a real estate industry term and seeks to maximize profit within the allowable land use policy
  2. "Policy proposal" scenario that aligns with Waterfront Toronto's existing practice (Waterfront Toronto's traditional approach to land valuation begins with a fair market value assessment of the land and allows for deductions based on achieving agreed to public policy objectives)
  3. "Innovation" scenario, in which the innovations Sidewalk Labs intends to implement at Quayside would likely increase construction cost beyond the "policy proposal" and reduce land value to an even greater extent. Sidewalk Labs states that they are prepared to fund this category of innovations and is proposing that the land be sold under the "policy proposal" value
- Sidewalk Labs indicates that they are intending to calculate land value using scenario 2 "Policy proposal"
- Lastly, should Sidewalk Labs turn greater than expected profits, they are proposing that these profits would be shared with Waterfront Toronto and its government partners

### Waterfront Toronto's Note to Reader Review

- Waterfront Toronto's mandate is to revitalize the former industrial lands on the waterfront, which requires bringing these lands to market while achieving public policy objectives, including sustainability, affordable housing, design excellence and digital inclusion
- Waterfront Toronto will be undertaking a comprehensive review to assess the extent to which the adjustments to land value proposed by Sidewalk Labs are aligned with Waterfront Toronto's priority outcomes as well as whether the financial tradeoffs to land value are financially justifiable
- Should the MIDP go forward, it would be on the basis that Waterfront Toronto lead a competitive, public procurement process for developer(s) to partner with Waterfront Toronto and Sidewalk Labs (as our Innovation and Funding Partner)

### Early thinking on risks to consider:

Within the real estate proposal, examples of risks to consider include:

- If Waterfront Toronto transacts at the "policy proposal" value, we need to be confident that the purchaser of the land can deliver on the agreed to policy objectives
- There is a risk that there will be insufficient market interest from private sector developers to partner with Waterfront Toronto and Sidewalk Labs (as our Innovation and Funding Partner) given the lower than average developer profits that the Quayside project is currently expected to generate

### Waterfront Toronto's Questions for You

1. What do you see as the potential benefits and risks of moving forward with the economics proposed by Sidewalk Labs for the real estate transaction?
2. What suggestions, if any, do you have for Waterfront Toronto as they review this proposal?

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# Volume 3 The Partnership: Transaction Economics Infrastructure



## What Waterfront Toronto asked for:

- Waterfront Toronto's RFP called for an Innovation and Funding Partner to advance a new market model for climate-positive urban developments, including new partnership models to secure funding for the infrastructure required to support future phases of revitalization
- We set out to explore alternative types of infrastructure that would achieve our policy objectives, and to develop funding and investment models with the private, public and not-for-profit sectors that could enable our projects and achieve these ambitious outcomes

## Sidewalk Labs' Proposal

In the MIDP Sidewalk Labs identifies two major types of infrastructure. There is municipal infrastructure, which includes things such as parks, water mains, sewers, and light-rail transit (LRT). There is also advanced infrastructure that focuses on new types of private infrastructure that would be dedicated to issues such as mobility and sustainability.

Sidewalk Labs has proposed optional models for financing for both the municipal infrastructure and advanced infrastructure required for the next phase of waterfront revitalization and to meet the project objectives.

### i. Upfront Optional Financing for Municipal Infrastructure

- Sidewalk Labs indicates a willingness in the MIDP to explore various options with governments for implementing enabling infrastructure, such as the LRT
- In one option, Sidewalk Labs offers upfront financing for the municipal infrastructure at a fixed rate of return to be negotiated in the future
- In the MIDP, Sidewalk Labs reinforces that any such financing is presented as optional
- Sidewalk Labs has proposed various value capture mechanisms to fund infrastructure. The proposed value capture mechanisms would be administered by the Public Administrator. It is important to note that the value capture mechanisms and the role of the Public Administrator are outside of Waterfront Toronto's mandate and need to be explored further

### ii. Implementation and Optional Financing for Advanced Systems

In order to achieve the project objectives, Sidewalk Labs proposes that the following advanced infrastructure systems are required, and they are proposing to procure third-party operators for each.

- Advanced power grid:** Complementing Toronto Hydro's electricity distribution, including rooftop solar photovoltaic generation, battery energy storage and energy management
- District parking management:** New system to manage stacked parking equipment, EV charging, and attendant-based retrieval from off-site parking
- Dynamic streets:** Paving technology featuring lighting, heating during the winter and digital infrastructure for traffic management
- Freight system:** Underground self-driving dollies for the delivery of packages that would be connected to a consolidation centre
- Stormwater management upstream of municipal sewers:** Sensors and controls of private stormwater systems from private buildings. This infrastructure would be in the public realm
- Fiber-optic network:** With existing partners, deliver Super-PON for internet connectivity
- Vacuum waste system:** A pneumatic waste collection system from buildings and public spaces, accompanied by a pay-as-you-throw waste chute with downstream monitoring
- Thermal network:** A fossil-fuel-free district energy network connecting buildings to low-grade waste heat sources such as Lake Ontario, or industrial facilities in the area

Sidewalk Labs proposes a framework for oversight of these companies to ensure they are acting in the best interest of the residents, including several management entities, some of which would fall under Public Administrator to fulfill that role, while others would be managed by a separate public body. These proposed entities include the Waterfront Transportation Management Association and Waterfront Sustainability Association.

At Quayside and Villiers West, Sidewalk Labs is proposing to design and construct the advanced infrastructure before transferring to the private operators. Throughout the remainder of the IDEA District, the advanced infrastructure would be

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The proposal outlines how these advanced systems would replace typical business-as-usual utility systems, such as natural gas distribution, and this would result in a payment (a local infrastructure charge) being made by vertical developers to the third-party advanced system operators to offset cost premiums.

## Waterfront Toronto's Note to Reader Review

- There is no privatization of public roles or assets proposed for infrastructure development or operations
- The Sidewalk Labs proposal follows existing models where private operators, such as Enwave, Enbridge, Rogers, Bell and Beanfield Metroconnect, deliver certain infrastructure services with oversight by a public regulator (for example, the Ontario Energy Board and the CRTC)
- The proposal from Sidewalk Labs indicates that the dynamic streets (including LED lighting, heating and digital traffic management) would replace typical municipal streets, however they would be owned by the City of Toronto as a public right-of-way and operated under the WTMA with oversight by the Public Administrator
- The proposed municipal infrastructure would remain as municipal systems, with typical City of Toronto operations and maintenance
- In order to achieve the project objectives, Sidewalk Labs proposes residents of the IDEA District would be required to use the services provided by the advanced infrastructure operators
- The design, construction and approval of these systems would be funded by Sidewalk Labs and other private sector operators, but future user rates for utilities, such as electricity and thermal energy, would need to be paid for by consumers
- Currently, Sidewalk Labs' analysis show that they would need to make a Supplemental Innovation investment for Quayside and Villiers West, in order to maintain user rates within 5% to 10% of business-as-usual
- Additionally, the proposed advanced infrastructure systems could be financed through Sidewalk Infrastructure Partners, a new infrastructure fund supported by Alphabet Inc. (the parent company of Sidewalk Labs) and Sidewalk Labs

## Early thinking on risks to consider

Within the infrastructure proposal, examples of risks to consider include:

- Escalation of user utility rates beyond the projected 5% to 10%, as a result of cost overruns or failed infrastructure systems that must be replaced
- Inherent complexities of the proposed governance model for mobility and sustainability infrastructure systems, which could affect viability of integrated infrastructure systems

Waterfront Toronto will ensure that concerns are captured in relation to the infrastructure proposal, and that mitigation measures and conditions for potential approval are explored

## Waterfront Toronto's Questions for You

- What do you see as the potential benefits and risks of moving forward with the economic transactions proposed by Sidewalk Labs for municipal infrastructure and advanced infrastructure?
- What suggestions, if any, do you have for Waterfront Toronto as they review these infrastructure proposals?

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# Volume 3 The Partnership: Transaction Economics Intellectual Property



## What Waterfront Toronto asked for:

The 2017 RFP stated that Waterfront Toronto and the selected Innovation and Funding Partner would lead development of an investment strategy for the Project. As part of this, the strategy was to address "ownership and sharing of intellectual property resulting from the Project," and the Partner was required to submit "a preliminary framework for a potential management approach for Intellectual Property introduced to or developed through the Project, and any revenue sharing between Waterfront Toronto and the Partner."

## Sidewalk Labs' Proposal

The framework put forward by Sidewalk Labs has two principal elements:

### i. Profit Sharing / Testbed

- In the MIDP, Sidewalk states that "neither Waterfront Toronto nor the public is primarily a technology developer," and asserts that co-created technology (for which there would be co-owned Intellectual Property) is not likely to arise
- To address Waterfront Toronto's objectives, Sidewalk Labs has proposed that the public sector receive 10% of Sidewalk Labs' global profits from "Testbed-Enabled Technologies" for a period of 10 years, starting when each technology is sold to a second customer
- A "Testbed-Enabled Technology" is defined as a technology that is first deployed at scale in the project area, and for which the following conditions are established by the relevant stakeholders, as and if applicable to each technology:
  - Access to mount or deploy the technology in physical spaces;
  - A mandate to use common software standards that enable compatibility and interoperability (for instance, all building access systems must use the same open standard);
  - Approvals in place, up front, and regulatory conditions that support the physical, digital and operational conditions required;
  - Sufficient scale for efficacy or to otherwise achieve desired outcomes; and
  - An ecosystem that provides the opportunity for all the physical, software and regulatory conditions simultaneously.
- Implementation agreements would establish a process to determine, prior to deployment, whether the product is a Testbed-Enabled Technology

### ii. Patent Pledge

- Sidewalk Labs proposes to pledge not to assert any granted patents in Canada which cover the software or hardware that enable digital innovations related to the project, so long as companies using those patents do not assert their own patent rights against Sidewalk Labs or its affiliated companies
  - The intent of such a pledge is to facilitate innovation and collaboration by third parties, including Canadian technology companies, in Quayside free of the threat of patent litigation
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- Sidewalk Labs will publish the content of the pledge on its website, along with a list of patents included in the pledge as they are developed

## Waterfront Toronto's Note to Reader Review

- Waterfront Toronto has given significant preparatory consideration to the issue of Intellectual Property and how value can be appropriately captured

### Early thinking on risks to consider:

Waterfront Toronto has identified a number of challenges and risks associated with the sharing framework in the MIDP. For instance:

- Will the project area be sufficient to meet the scale requirement for a "Testbed-Enabled Technology"?
- A profit-sharing model creates challenges related to calculation or audit, as opposed to a revenue sharing model
- While the Patent Pledge is useful, it does not obviate the need for other technology companies, including Canadian companies, operating in Quayside to obtain appropriate intellectual property protection when they sell into markets outside of Canada
- What will the impact of the Patent Pledge be in helping to create a competitive innovation environment in Quayside, particularly for those suppliers who choose to take advantage of the patent pledge for their own Intellectual Property strategy?

## Waterfront Toronto's Questions for You

1. What do you see as the potential benefits and risks of moving forward with the intellectual property transactions proposed by Sidewalk Labs?
2. What suggestions, if any, do you have for Waterfront Toronto as they review these intellectual property proposals?

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# Volume 3 The Partnership: Government Obligations



## Sidewalk Labs' Proposal

The MIDP proposal sets out initiatives that require future commitments by the public sector in order to realize the project objectives. Waterfront Toronto has identified these initiatives and places them into two categories – Government Investment and Policy/Regulatory Reform.

### Government Investment

Future government investment needed to achieve the outcomes proposed in the MIDP has been identified through Waterfront Toronto's initial review of the proposal. Further assessment of the MIDP is required to better understand the details of the required government investment and how it may impact the final evaluation of the MIDP. Examples of these potential future investments include, but are not limited to:

- **Municipal infrastructure (incl. the LRT):** There is a significant investment in municipal infrastructure required to advance the plan proposed in the Draft MIDP
- **Below market housing program:** Through National Housing Strategy Contributions and City Incentives, the public sector would need to support Sidewalk Labs' private sector funding proposal with an estimated \$77 million in public funding to realize the affordable housing proposal. At the IDEA District scale, an additional \$920 million could be required
- **Not-for-profit/third-party management entities:** It is expected that certain management entities would require ongoing operating capital from government, namely, the Open Space Alliance and the Urban Data Trust

### Policy/Regulatory Reform

Sidewalk Labs proposes areas of needed government policy and regulatory reform in order to realize the project objectives. The MIDP proposes that these areas of reform fall into two categories:

#### Regulatory/Targeted Adjustments

- Sidewalk Labs proposes elements of the MIDP would require targeted adjustments from existing legislation, regulation or policy
- The MIDP proposal includes a total of 15 proposals that require targeted adjustments and the authorization implicated
- The MIDP proposes that the targeted adjustments would require government action such as administrative agreements or legislation changes

#### Initial Innovation Design Standards and Guidelines

- Sidewalk Labs has proposed a series of enhanced requirements, the Innovation Design Standards and Guidelines, that would apply to new development in the proposed IDEA District (in line with the IDEA District governance) in order to meet the project objectives
- The Innovation Design Standards and Guidelines require no change in law or regulation and would apply to lands that are publicly owned or where landowners opt in. The MIDP proposes 20 of such requirement

## Waterfront Toronto's Questions for You

1. What do you see as the potential benefits and risks of moving forward with government investments and regulatory reforms proposed by Sidewalk Labs?
2. What suggestions, if any, do you have for Waterfront Toronto in terms of how they consider / mitigate these risks?

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# Waterfront Toronto's Risk Assessment

Waterfront Toronto is currently undertaking a thorough risk assessment that is being led by KPMG. After a preliminary exercise, we have identified risks of varying degrees associated with the MIDP proposal including, but not limited to, risks associated with project delivery, privacy, project governance, accessibility, funding/financing and partnership.

Waterfront Toronto is seeking the public's input to inform the next phase of the risk assessment. We want to ensure the public's concerns are captured, mitigation measures are explored and, where appropriate, conditions under which the public would consider proceeding with the project are identified.

Examples of overarching risks being considered by Waterfront Toronto include:

- Feasibility/viability of MIDP proposals in achieving the project objectives: As with any innovative and complex project, we must pay close attention to the likelihood of certain innovations being successful and the roadblocks they may encounter, ensuring the appropriate backstops and mitigation measures are properly considered and included
- Private sector vs. public sector interests: Waterfront Toronto was created by three orders of government to work in the public interest. Sidewalk Labs is a subsidiary of Alphabet Inc., which is a publicly traded company with a mandate to generate a profit for its shareholders. There is a risk that the different goals and obligations of the public and private sectors could create issues that make the project, or some aspects of it, untenable for Waterfront Toronto and/or Sidewalk Labs
- Data governance and privacy: There is a risk that resident user data is leaked due to a data breach, as well as a risk of secondary, unethical uses of technologies developed/data collected at Quayside

Examples of more specific risks, and questions for the public related to those risks, have been provided throughout the Note to Reader to provoke thought and discussion.

# Waterfront Toronto's Evaluation



## Quayside RFP Objectives

- 1. Sustainability, Resiliency and Urban Innovation:** Create a globally significant demonstration project that advances a new market model for climate-positive urban developments
- 2. Complete Communities:** Establish a complete community that emphasizes quality of place, and provides a range of housing types for families of all sizes and income levels within a robust mix of uses, including public open space, culture, recreation, vibrant retail, education-related activities and offices
- 3. Economic Development and Prosperity:** Provide a testbed for Canada's cleantech, building materials and broader innovation-driven sectors to support their growth and competitiveness in global markets
- 4. Partnership and Investment:** Develop a new partnership model that ensures a solid financial foundation, manages financial risk and secures revenue that funds future phases of waterfront revitalization

In addition to those RFP Objectives, Waterfront Toronto has identified five Priority Outcomes that the MIDP must address:

- Job Creation and Economic Development,
- Sustainability and Climate Positive Development
- Housing Affordability
- New Mobility
- Urban Innovation

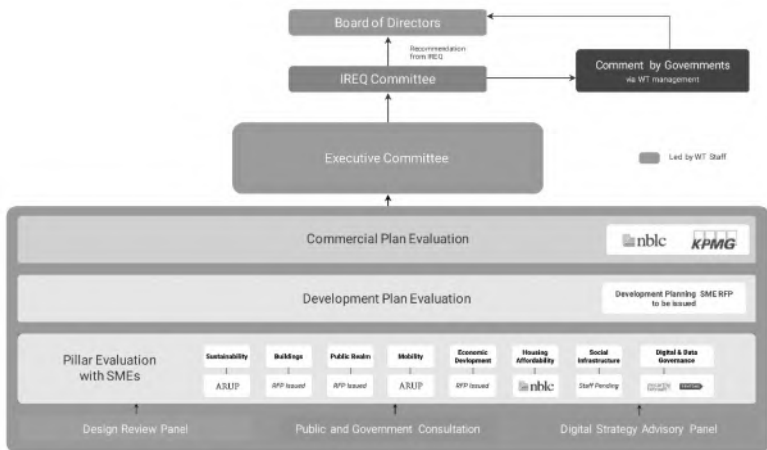
Robust Data Privacy and Digital Governance are central to success and to the realization of all Goals and Objectives

## Waterfront Toronto's evaluation of the MIDP will determine:

- Does the MIDP meet the RFP goals and objectives? How well does it meet those targets?
- Does the MIDP align with the planning framework for the waterfront?
- Is the proposed business plan viable and in the public interest?
- Does the proposal satisfy our Priority Outcomes?

## Accountability and transparency remain at the core of Waterfront Toronto's work.

Waterfront Toronto has sought feedback on our approach to evaluating the proposed plan for Quayside, the evaluation criteria, and our goals and objectives from: Members of the public, Quayside Stakeholder Advisory Committee, Tri-level government partners, Waterfront Toronto's expert advisory panels: Digital Strategy Advisory Panel & Design Review Panel, Waterfront Toronto's Board of Directors & Investment, Real Estate and Quayside Committee.





# Pre-MIDP Feedback

## Overview of what Waterfront Toronto has learned over the last 18 months



Waterfront Toronto has been listening to and learning from the public over the last 18 months, prior to receiving the Draft MIDP from Sidewalk Labs. Starting with the first Town Hall related to Quayside in 2017, we have been identifying the range of thoughts and feedback being shared, including: issues and concerns, questions, potential opportunities and benefits, and thoughtful recommendations. See below for a list of these pre-MIDP consultation activities.

Across all of these activities, there were nine themes that emerged in people's feedback about this project. They consistently identified:

1. The need for strong public oversight.
2. The importance of a trusted data framework and the protection of privacy.
3. The need to be able to understand and communicate the business model for Quayside.
4. The importance of a social infrastructure strategy that provides for accessible and inclusive spaces and services.
5. The importance of affordable housing in creating a diverse community.
6. The importance of sustainability in all aspects of the future of Quayside, including the environment.
7. The importance of communication and transparency in building trust.
8. How important it is for residents and citizens to be in control of the use of their data and to be able to give meaningful consent.
9. The importance of being able to communicate what's being proposed in a clear and transparent way

Beyond these themes there are much more detailed reflections on a range of issues discussed prior to submission of the Draft MIDP by Sidewalk Labs.

### Activities to date:

- 4 public roundtables
- 3 Civic Labs
- Public Meeting on Digital Neighbourhoods
- Residents Reference Panel
- Community Services Advisory Working Group
- Data Governance Advisory Working Group
- Housing and Affordability Advisory Working Group
- Mobility Advisory Working Group
- Public Realm Advisory Working Group
- Sustainability Advisory Working Group
- Quayside Stakeholder Advisory Committee
- Sidewalk Toronto Fellows Report
- Design Jams

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Summaries from all of this work are all available at  
[QuaysideTO.ca](http://QuaysideTO.ca).



## Digital Strategy Advisory Panel

Waterfront Toronto's Digital Strategy Advisory Panel (DSAP) is an arms-length body that helps guide Waterfront Toronto on how best to incorporate data privacy, digital systems, and the safe and ethical use of new technologies in the next phase of waterfront revitalization. The Panel was formed in April 2018 and advises Waterfront Toronto on policies and strategies related to the Quayside project.

The mandate of the Panel is to provide Waterfront Toronto with objective, expert advice to ensure that principles of ethical use of technology, accountability, transparency, protection of personal privacy, data governance and cyber security are upheld. The Panel will further ensure that intellectual property and data are safeguarded while encouraging innovation and economic development. Waterfront Toronto will continue to work closely with governments and policy makers, the public, and industry experts to help coordinate the rules and accountability protocols that will be integral to the success of these initiatives.



<b>Agenda Item</b>	4 – Governance Working Group
<b>Purpose</b>	Information & Discussion
<b>Key Message</b>	The <b>Governance</b> subcommittee met on April 29 to discuss the DSAP Code of Conduct, and a new version has been drafted which looks to address Panelist comments and concerns.
<b>Areas of note/ Key issues</b>	
<b>Expected Outcome</b>	Panelist awareness (and acceptance of) revised Code of Conduct.
<b>Key Takeaways/ Next Steps</b>	Panelists will be asked to sign the revised Code of Conduct, either in person or following the meeting.





**TORONTO WATERFRONT REVITALIZATION CORPORATION**

**CODE OF CONDUCT**  
**PANEL MEMBERS**



## CODE OF CONDUCT FOR PANELS

### 1. INTRODUCTION

#### 1.1 Who we are

The Government of Canada, the Province of Ontario, and the City of Toronto created the Toronto Waterfront Revitalization Corporation (Waterfront Toronto) to oversee and renew Toronto's waterfront. The key drivers of the waterfront revitalization are reconnecting people with the waterfront, design excellence, sustainable development, economic development, and fiscal sustainability.

Waterfront Toronto is a corporation funded by three levels of government. These government bodies have provided seed capital for a 25-year mandate to transform 800 hectares (2,000 acres) of brownfield lands on Toronto's waterfront into beautiful, accessible, sustainable, mixed-use communities and dynamic public spaces. A strong, expert, and engaged 12-member board of directors, appointed by the three levels of government, oversees the strategic direction of Waterfront Toronto.

The work of Waterfront Toronto management is supported by three expert panels: the Design Review Panel, the Capital Peer Review Panel and the Digital Strategy Advisory Panel.

Waterfront Toronto is governed by the *Toronto Waterfront Revitalization Corporation Act, 2002*.

#### 1.2 What is a Code of Conduct?

This Code of Conduct (the "Code") is intended to assist Panel Members as they fulfill the mandate of the Panel of which they are a member.

The Code is a set of principles, guidelines, and rules that Panel Members must use to guide their conduct and decision making in fulfilling out the Panel's mandate. The Code establishes responsibilities for Panel Members to fulfill and processes to help Panel Members fulfill their responsibilities.

The Code is based on the principles, values, and ethical standards to which Waterfront Toronto and its board of directors are held. It is substantially similar to the code of conduct that is applicable to the board of directors, with modifications that are necessary to make it applicable to the Panels.

#### 1.3 Application of the Code

Each Panel Member is responsible for behaving in accordance with the Code. This responsibility begins when the Panel Member is appointed to the Panel and, in the cases described in Sections 2.3, 3, and 4, continues even after the Panel Member retires from the Panel.

Further, the Code relates to the Panel Member's Family Members and to Business Associates in the cases described in Sections 2.2 to 2.5, and 2.7.



## 1.4 Guiding Principles

The public mandate of Waterfront Toronto requires accountability to the public, the preservation of trust and confidence of the public.

**The specific rules set out in this Code are illustrative and not exhaustive. As such, Panel Members must comply with the letter and spirit of the Code.**

## 1.5 Ethical Conduct

Panel Members should consider the following questions as a guide to everyday conduct and decision making as a Panel Member:

- (a) Is the decision or conduct legal? Is it ethical?
- (b) Is the decision or conduct in line with Waterfront Toronto's public mandate, objectives, and policies?
- (c) Is there a Conflict of Interest that should be disclosed? If a Panel Member is uncertain whether a Conflict of Interest exists, the Panel Member should report it pursuant to Section 2.9 below.

## 1.6 Honesty and Integrity

Waterfront Toronto expects Panel Members to observe the highest business and ethical standards, including honesty and integrity.

## 1.7 Duty to Act in the Best Interests of Waterfront Toronto

Panel Members must always make decisions and act in the best interests of Waterfront Toronto in fulfilling the Panel's mandate. ~~This duty requires that Panel Members prioritize Waterfront Toronto over all persons and other organizations when engaged in Panel duties.~~

## 1.8 Compliance with Policies of Waterfront Toronto

Panel Members must comply with the policies of Waterfront Toronto that apply to them. Waterfront Toronto may create new policies and update existing policies that are applicable to the Panel Members and will notify Panel Members of such changes.

If a Panel Member is unsure of how to comply with a policy, the Panel Member should seek guidance from the Panel Chair.

## 1.9 Follow the Law

Panel Members must always follow the law, including federal, provincial, and municipal law. Panel Members must not instruct or encourage others to commit an illegal or improper act, especially if they are involved with Waterfront Toronto in any way.



## **2. CONFLICTS OF INTEREST**

### **2.1 What is a Conflict of Interest?**

A Conflict of Interest is a situation where any interest or desire of a Panel Member may appear to compete with the obligations towards Waterfront Toronto in fulfilling out the Panel's mandate. It is any situation which could appear to improperly influence the advice or decision making of a Panel Member.

Appearances matter in the context of Conflicts of Interest. The appearance or perception of a Conflict of Interest is a Conflict of Interest situation, even if the Panel Member does not believe that a real Conflict of Interest exists. If a Panel Member is unsure whether a situation looks like a Conflict of Interest situation, the Panel Member should consult the Ethics Official.

The following is an example of a hypothetical Conflict of Interest situation. Imagine that Waterfront Toronto puts out a request for proposal (RFP) for the supply of a product. Two suppliers respond to the RFP and tender bids. Imagine that both suppliers, their products, and their bids are similar. Except that the bid by one supplier is at a more attractive price for Waterfront Toronto, and a Family Member of a Panel Member owns the supplier that tendered the other bid. Here, the Panel Member would have a Conflict of Interest between promoting the best interests of Waterfront Toronto in fulfilling the Panel's mandate, on the one hand, and supporting the Family Member-owned supplier, on the other hand.

There are many types of interests of Panel Members which may create Conflict of Interest situations, including business interests, personal relationships, and others. But all Conflicts of Interest undermine the duty of a Panel Member to advise, make decisions and act in the best interests of Waterfront Toronto in fulfilling the Panel's mandate.

Section 2.2 to 2.8 are examples of Conflict of Interest situations. Panel Members must report all Conflict of Interest situations to the Ethics Official, even if the situations are not specifically addressed in or prohibited by the Code. Panel Members should use their judgement and the principles and guidelines set out in the Code to identify Conflict of Interest situations that are not specifically addressed in or prohibited by the Code.

### **2.2 Procurement**

Procurement is the process by which Waterfront Toronto purchases, licenses, or obtains goods, products, services, and anything else. It is essential that all Panel Members and suppliers who have procurement-related Conflicts of Interest report the Conflicts of Interest to the Ethics Official pursuant to Section 2.9.

In addition, Waterfront Toronto maintains a standalone Procurement Policy in respect of procurement. Panel Members should read and understand this policy, which is available



on the Procurement section of the Waterfront Toronto website. Procurement related Conflicts of Interests will be resolved in accordance with the Procurement Policy.

Where a Panel Member, Family Member or Business Associate has a relationship with or interest in a supplier that may be a Conflict of Interest, the supplier may tender bids to Waterfront Toronto *ONLY* if:

- (a) the Panel Member reports the Conflict of Interest to the Ethics Official pursuant to Section 2.9;
- (b) the supplier reports the Conflict of Interest to the Procurement Manager pursuant to the Procurement Policy;
- (c) the Panel Member absents themselves from discussions about and voting on behalf of Waterfront Toronto on matter(s) related to the Conflict of Interest; and
- (d) the Panel Member and supplier comply with all requirements and conditions as instructed by the Ethics Official pursuant to Section 2.10 and/or the Procurement Policy, as applicable.

## **2.3 Personal Financial Transactions**

Panel Members must not take advantage of Confidential Information. For example, Panel Members must not use Confidential Information to achieve a financial advantage for themselves personally, a Family Member, a Business Associate, or for any other person. Panel Members may only use Confidential Information to carry out their responsibilities as a Panel Member.

Misuse of Confidential Information may, in some circumstances, also represent a breach of securities laws relating to insider trading or tipping, and expose a Panel Member to serious legal consequences.

## **2.4 Gifts**

The receipt, directly or indirectly, of Gifts by Panel Members, Family Members, or Business Associates from other parties has risks including the following. One, it could breach the policy of Waterfront Toronto that all suppliers of goods or services to have access to Waterfront Toronto on equal terms. Two, it could generate a Conflict of Interest situation. To protect against the aforementioned and other risks, Panel Members:

- (a) must not solicit Gifts in connection with their position as Panel Members or their association with Waterfront Toronto;
- (b) must not accept or receive Gifts as a condition of or inducement to Waterfront Toronto doing business with any person, organization, or business;
- (c) must not accept or receive Gifts as an inducement for performing an act associated with the position of Panel Member or in exchange for preferential treatment;



- (d) may accept a gift, hospitality or entertainment in connection with the official duties of Panel Members *ONLY* if the gift, hospitality, or entertainment satisfies all of the following conditions. The gift, hospitality, or entertainment must:
- (i) be within the bounds of propriety, a normal expression of courtesy, or within the normal standards of hospitality;
  - (ii) have a value not exceeding C\$100;
  - (iii) not bring suspicion on the objectivity and impartiality of the Panel Members;
  - (iv) not compromise the integrity or reputation of Waterfront Toronto, or the Panel Members;
  - (v) not generate a Conflict of Interest situation; and
  - (vi) not be associated with preferential access of any person, business, or organization to Waterfront Toronto.

If a Panel Member, Family Member, or Business Associate receives a Gift that would cause the Panel Member to be in breach of any of the above, the Panel Member must return it to the donor with a letter referring to the Code.

Panel Members must not directly or indirectly give, offer or agree to give or offer to an official or employee of the Government of Canada, the Province of Ontario, or the City of Toronto (or to any Family Member or Business Associate of the official or employee) a Gift as consideration for cooperation, assistance, exercise of influence or an act or omission in connection with any Waterfront Toronto business or transaction.

## **2.5 Employment of Family Members and Business Associates**

The employment of a Panel Member's Family Members or Business Associates by Waterfront Toronto has risks including the following. One, it could be perceived as favoritism in hiring or that job applicants do not have access to Waterfront Toronto on equal terms. Two, it could generate a Conflict of Interest situation. To protect against the aforementioned and other risks, Panel Members:

- (a) must not participate in the selection process where a Family Member or Business Associate is an applicant;
- (b) must not request that a Family Member or Business Associate be hired or retained;
- (c) must not request that a current or potential supplier of goods or services to Waterfront Toronto hire or retain a Family Member or Business Associate, make the business of Waterfront Toronto with the supplier conditional on the hiring or retainer, or use the business of Waterfront Toronto to induce the supplier to hire or retain a Family Member or Business Associate.



Further, Waterfront Toronto will not hire or retain (including as interns or co-op students; whether paid or unpaid) a Family Member or Business Associate of a Panel Member, unless the potential hiring or retainer is reported to and approved by, and carried out in accordance with all instructions of, the Chief Executive Officer.

## **2.6 No Misuse of Status as Panel Member**

Panel Members must not use their status, title, or position as Panel Members to obtain a Gift or to solicit funds, goods, or services, for themselves personally or for any person, business, or organization, from Waterfront Toronto staff or from those contracting or otherwise involved with Waterfront Toronto. However, this provision is not intended to otherwise restrict the solicitation of funds, goods, or services from parties in the normal course and in a manner unrelated to and without any influence or benefit from the Panel Member's association with Waterfront Toronto.

This means that no Panel Member should use the fact of being a Panel Member as leverage to achieve any benefit for themselves or others, other than for Waterfront Toronto.

## **2.7 ~~Purchasing Condominium Units or~~ Real Estate within the Designated Waterfront Area**

~~Panel Members and their Family Members must not lease or purchase, or negotiate for the lease or purchase of, any interest in or deriving from real estate that is located in or adjacent to the Designated Waterfront Area, unless they (i) first report the same to the Ethics Official, and (ii) are granted prior written permission to do so by the Chief Executive Officer.~~

~~For certainty, a A Conflict of Interest exists if any Panel Member, Family Member or Business Associate will benefit from any delivery incentives such as "early bird" pricing, other discounts, or preferential positioning on sale prospects lists that are not then generally available to the public.~~

~~Design Review Panel Members are also required to disclose to the Design Review Panel the acquisition, holding or disposition of any interest in real estate that is within or adjacent to the Designated Waterfront Area, by themselves, their Family Members and Business Associates.~~

## **2.8 Use of Waterfront Toronto's Assets**

Panel Members must not use or permit others to use any property or assets of Waterfront Toronto, including but not only Intellectual Property, except for the benefit of Waterfront Toronto. Relatedly, Panel Members must not take or permit others to take any property or assets from the premises of Waterfront Toronto, unless Waterfront Toronto has authorized them to do so.

## **2.9 Reporting of Conflicts of Interest**

Individuals are often appointed as Panel Members because they have experience that is relevant to the business of Waterfront Toronto, and it is often because of their experience that Panel Members may find themselves in a Conflict of Interest situation.



Nonetheless, Panel Members must declare and report all Conflicts of Interest:

- (a) *When they become Panel Members* – Each Panel Member must immediately report all Conflicts of Interest to the Ethics Official prior to or at the beginning of their term as Panel Member by signing and delivering an Annual Declaration to the Ethics Official. See Section 7.7 for more on Annual Declarations;
- (b) *At the beginning of every meeting* – Each Panel Member must immediately report all Conflicts of Interest arising out of the agenda of a meeting to the Panel at the beginning of every Panel meeting; See Section 2.11 for more on reporting Conflicts of Interest at the beginning of meetings;
- (c) *When a change in circumstances may raise a Conflict of Interest* – Each Panel Member must immediately report to the Ethics Official any change in circumstances that may raise a Conflict of Interest as soon as the changes occur; and
- (d) *At the beginning of every calendar year* – Each Panel Member must report all Conflicts of Interest to the Ethics Official at the beginning of every calendar year by signing and delivering an Annual Declaration to the Ethics Official, whether or not the Conflicts of Interest have been reported previously. See Section 7.7 for more on Annual Declarations.

## **2.10 Resolution of Conflicts of Interest**

The Ethics Official will investigate and resolve all Conflicts of Interest. The Ethics Official may resolve Conflicts of Interest by:

- (a) instructing Panel Members involved with the Conflict of Interest to absent themselves from discussions about, and voting on behalf of Waterfront Toronto on, the matter relating to the Conflict of Interest;
- (b) permitting the Panel Member involved with the Conflict of Interest to remain in the situation subject to restrictions or conditions that the Ethics Official considers appropriate in the circumstances;
- (c) obtain a Waiver of the Conflict of Interest if appropriate and in accordance with Section 7.5;
- (d) obtain a determination that there is no actual Conflict of Interest in accordance Section 7.5; and/or
- (e) taking any action that the Ethics Official determines will promote the Panel's mandate and best interests of Waterfront Toronto.

If a Conflict of Interest is procurement-related, also refer to Section 2.2 above.



## **2.11 Meeting Procedures**

Panel Members must, at the beginning of each meeting, consider all Conflicts of Interest arising out of the meeting agenda. Each Panel Member must report all of their Conflicts of Interest arising out of a meeting agenda to the Panel at the beginning of every Panel.

After reporting the Conflict of Interest, the Panel Members that are involved with the Conflict of Interest must, unless the Ethics Official has granted a Waiver in respect of the Conflict of Interest and subject to any conditions the Ethics Official has imposed, absent themselves from discussions at the meeting about, and voting on behalf of Waterfront Toronto on, the matter(s) relating to their Conflict of Interest, but may participate in the rest of the meeting and vote on matters that are unrelated to the Conflict of Interest.

## **3. CONFIDENTIAL INFORMATION**

Panel Members must use Confidential Information solely for the purpose of performing of their duties as Panel Members of Waterfront Toronto.

Panel Members must not disclose Confidential Information at any time or for any reason, even after ceasing to be a Panel Member, unless authorized to disclose it by an authorized representative of Waterfront Toronto.

Panel Members must take all reasonable steps to safeguard the confidentiality of all Confidential Information.

## **4. INTELLECTUAL PROPERTY**

Panel Members must take all reasonable steps to safeguard the Intellectual Property of Waterfront Toronto.

All materials created by and communications involving Panel Members in connection with their work for and representation of Waterfront Toronto are the Intellectual Property of Waterfront Toronto and owned exclusively by Waterfront Toronto.

## **5. PUBLIC STATEMENTS & THE MEDIA**

### **5.1 Who Speaks for Waterfront Toronto**

Only the Chief Executive Officer, the chair of the board of directors, and their designated representatives are authorized to speak on behalf of Waterfront Toronto and/or disclose Confidential Information.

### **5.2 Who Speaks for the Panel**

Only the Chair of the Panel and its designated representatives are authorized to speak on behalf of the Panel.

Panel Members must not make public comments about the Panel, unless the Chair has authorized them to do so.



### 5.3 The Media and Social Media

~~Panel Members must not communicate with or provide information to the media about Waterfront Toronto or the Panel, unless the Chair has authorized them to do so.~~

Waterfront Toronto recognizes that Panel Members may from time to time be asked to comment publicly on various matters. The Code is not intended to restrict Panel Members' expression in a context that is distinct from their role as a Panel Member.

When making public statements, speaking to the media or using Social Media, Panel Members must avoid conduct that might suggest that they are representing Waterfront Toronto or the Panel (see Section 6), and must not disclose Confidential Information (see Section 3), unless authorized to do so. In some circumstances, it may be appropriate for Panel Members to expressly clarify that they are not speaking on behalf of Waterfront Toronto or the Panel.

Panel Members should also not make comments that disparage or hurt the reputation of Waterfront Toronto or the Panel. This is not intended to limit academic freedom or to preclude fair comments on matters of public interest made in good faith.

### 5.4 ~~Social Media~~

~~Panel Members must not communicate about or discuss Waterfront Toronto on Social Media, unless the Chair has authorized them to do so.~~

### 5.5.4 Requests for Disclosure

~~Panel Members who receive external requests to disclose Confidential Information or other information or about Waterfront Toronto must not disclose such information. Panel Members must may immediately provide refer the requests to the Chair or General Counsel of Waterfront Toronto, and must not respond to the requests other than to thank the sender and indicate that the request has been forwarded to the Chair or General Counsel, as applicable.~~

## 6. **ACTIVITIES EXTERNAL TO WATERFRONT TORONTO & POLITICS**

Waterfront Toronto welcomes Panel Members to be involved in their communities and with other activities external to Waterfront Toronto, including speaking engagements and politics, as Panel Members may choose.

Except at the request or with the authorization of Waterfront Toronto, Panel Members must not participate in external activities on behalf of Waterfront Toronto, as representatives of



Waterfront Toronto, or as Panel Members, and must take steps to clarify that their personal participation does not involve Waterfront Toronto.

## **7. ADMINISTRATION**

### **7.1 Where to go for help**

Panel Members may seek guidance from the Ethics Official if they are unsure whether their conduct breaches the Code. Panel Members will not be penalized for seeking assistance.

### **7.2 Breach of the Code**

Full compliance with the Code is a key requirement of being a Panel Member. A Panel Member is in breach of the Code when the conduct of the Panel Member fails to comply with any aspect of the Code. A Panel Member is also in breach of the Code if the Panel Member otherwise acts dishonestly or unethically, even if the act is not specifically addressed in the Code.

A breach of the Code could result in a Panel Member being disciplined, dismissed from the Panel, subject to legal action, and/or receiving negative publicity. Waterfront Toronto may, in some instances, be obligated to report a breach of the Code to regulators or law-enforcement authorities.

### **7.3 Duty to Report Breaches of the Code**

Each Panel Member must report all breaches of the Code to the Ethics Official, including all breaches by the Panel Member or by others. In addition, Panel Members must report all unethical or otherwise problematic matters that relate to Waterfront Toronto to the Ethics Official.

### **7.4 Conflicts Register**

The General Counsel of Waterfront Toronto will maintain a written Conflicts Register, which may include: (i) Annual Declarations, (ii) information about all reported breaches of the Code, including reports made pursuant to Section 2.9 above, the parties involved, and how the breaches were resolved, including whether Waivers were granted and any prohibitions, sanctions, conditions, and restrictions were imposed, and (iii) other information as the General Counsel may determine.

The Ethics Official will disclose information regarding all Conflicts of Interest to the General Counsel. The General Counsel will provide a report on the Conflicts Register to the Governance Committee at least once in each calendar quarter.

### **7.5 Relief or Waiver**

Waterfront Toronto does not intend to apply the Code mechanically. There may be limited cases where conduct breaches the Code but a Waiver of the duty to comply with the Code is necessary to promote the best interests of Waterfront Toronto in fulfilling the Panel's mandate. An example is when a Panel Member has a Conflict of Interest due to the Panel



Member owning a minor and passive interest in a supplier of Waterfront Toronto, and no other supplier serves the interests of Waterfront Toronto as well as that one.

The Ethics Official is responsible for determining whether a Conflict of Interest should be waived and, if so, any conditions that the parties involved with the Conflict of Interest and/or others must fulfill.

Continuing with the example above, the Ethics Official may grant a Waiver of the Conflict of Interest involving the Panel Member and the supplier. The Supplier may then be permitted to supply Waterfront Toronto, but only if the Panel Member and the supplier comply with the conditions that the Ethics Official has imposed.

The Ethics Official must consider the following factors when determining whether to grant a Waiver of a Conflict of Interest and, if so, any conditions that must be fulfilled:

- (a) how to promote the best interests of Waterfront Toronto and the mandate of the Panel;
- (b) how to promote the public mandate of Waterfront Toronto;
- (c) how to ensure that Waterfront Toronto is accountable to the public;
- (d) how to comply with law and ethics;
- (e) fairness, both in fact and appearance;
- (f) risk to the reputation of Waterfront Toronto;
- (g) the skills, experience, materials, and expertise of the parties involved with the Conflict of Interest;
- (h) the proximity between the Panel Member, Family Member or Business Associate and the circumstances that raise the Conflict of Interest;
- (i) whether the involvement of the Panel Member, Family Member or Business Associate with the circumstances that raise the Conflict of Interest is active or passive;
- (j) the likelihood that the Conflict of Interest may result in the existence or exercise of improper influence;
- (k) the monetary or other value associated with the Conflict of Interest;
- (l) whether procedural mechanisms may resolve the Conflict of Interest; and
- (m) any other matter which the Ethics Official may consider appropriate in the circumstances.

There may also be cases where a Panel Member discloses what looks to them to be a Conflict of Interest, but which the Ethics Official determines to not actually be a Conflict of Interest. In such cases, there is no Conflict of Interest to Waive, and the Panel Member may resume their activities.



## 7.6 Minutes of Meetings and Record Keeping

Panel Members may take notes during meetings of the Panel, however, only the minutes of the meeting taken by the WT Representative will be considered the official record of the meeting.

Panel Members must not create or help others to create any false or misleading record of any meeting or of any other matter relating to Waterfront Toronto.

## 7.7 Annual Declaration of Compliance with Code

At the beginning of the term of the Panel Member and at the beginning of every subsequent year, each Panel Member must acknowledge and declare that they have read and understand the Code and will fully comply with the Code at all times, by completing, signing and delivering the Annual Declaration to the Ethics Official. The Annual Declaration is attached as Appendix A to this Code.

Relatedly, see Section 2.9 for a discussion about reporting Conflicts of Interest.

## 8. DEFINITIONS

For the purposes of the Code:

- (a) **"Business Associate"** means, in respect of a Panel Member, (i) any business partner of the Panel Member or the Family Member, and/or (ii) any business, organization, or entity that the Panel Member, the Family Member, or a business partner of the Panel Member or the Family Member works for, with, owns, or has an interest in.
- (b) **"Chair"** is the person who is the chair of the Panel.
- (c) **"Chief Executive Officer"** means the senior employee responsible for the management and operation of Waterfront Toronto, or the designee of such person.
- (d) **"Confidential Information"** is information about or related to Waterfront Toronto that is not available to the general public and includes inside information provided by an external source with the expectation that the information will be kept confidential and will be used solely for the purpose for which it was conveyed. It also includes materials that contain or are derived from other Confidential Information.
- (e) **"Conflict of Interest"** means a situation where any interest or matter competes with, could compete with, or appears or could be perceived to compete with, the duty of Panel Members to Waterfront Toronto in accordance with the Panel's mandate. "Conflict of Interest" is further defined in Section 2.
- (f) **"Designated Waterfront Area"** is the area defined by regulations made under the *Toronto Waterfront Revitalization Act* in which Waterfront Toronto has authority to act.



- (g) **"Ethics Official"** means the Chair, or if the Chair may have a Conflict of Interest or wishes to delegate the matter, the Chief Executive Officer.
- (h) **"Family Member"** means:
  - (i) spouse, any person to whom the person is married or with whom the person is living in a conjugal relationship outside marriage;
  - (ii) parent, including step-parent and legal guardian;
  - (iii) child, including step-child;
  - (iv) sibling and children of siblings;
  - (v) parents' sibling (aunts/uncles) and their children (cousins);
  - (vi) grandchildren;
  - (vii) father/mother-in-law, brother/sister-in-law, son/daughter-in-law; or
  - (viii) any person who lives with the person on a permanent basis.
- (i) **"Gift"** means any kind of gift, hospitality, entertainment, benefit, reward, favour, influence, or advantage not available to the general public, including but not limited to cash, preferred pricing, loans, securities, commissions, or incentives.
- (j) **"Governance Committee"** means the committee of the board of directors, however named, that is responsible for reviewing the corporate governance of Waterfront Toronto and the board of directors.
- (k) **"Intellectual Property"** means all forms of intellectual property, including copyright, trademarks, patents, trade secrets, and otherwise, no matter what format the intellectual property is in and whether the intellectual property is registered or unregistered.
- (l) **"Panel"** means the Design Review Panel, the Capital Peer Review Panel, the Digital Strategy Advisory Panel, or other panel that may be constituted from time to time to advise Waterfront Toronto management.
- (m) **"Panel Member"** is a member of a Panel of Waterfront Toronto.
- (n) **"Social Media"** means online tools, platforms, websites, and apps that allow people to create and share information online and/or in social networks. This information may be in formats including text, audio, video, images, podcasts, and otherwise.
- (o) **"Waiver"** means when the Ethics Official waives conduct or a situation that would otherwise be in breach of the Code, in order to promote the best interests of Waterfront Toronto in fulfilling the Panel's mandate.
- (p) **"Waterfront Toronto"** means the Toronto Waterfront Revitalization Corporation, and all successors-at-law.



- (q) **"WT Representative"** means the person appointed as Waterfront Toronto's liaison or representative to a Panel, or their designee.



## APPENDIX A

### TORONTO WATERFRONT REVITALIZATION CORPORATION

#### ANNUAL DECLARATION

Unless otherwise defined herein, capitalized terms used in this Annual Declaration ("**Annual Declaration**") have the respective meanings given to them in Waterfront Toronto's Panel Member Code of Conduct (the "**Code**").

The objectives of this Annual Declaration include ensuring that Waterfront Toronto: (i) is accountable to the public, (ii) carries out its business ethically and in service of its public mandate, and (iii) avoids potential legal liability and embarrassment. This Annual Declaration will achieve the objectives by helping Panel Members comply with the Code so that they are not party to Conflict of Interest situations and, if they are, so that appropriate procedures are established to address the situations to ensure that Waterfront Toronto achieves its objectives.

Panel Members must complete this Annual Declaration at the beginning of their first term as Panel Member and annually thereafter for the duration of their time as Panel Members.

Further, Panel Members must immediately report to the Ethics Official any change in circumstances that may give rise to a Conflict of Interest situation.

I, the undersigned Panel Members, ~~must hereby~~ confirm the following ~~by checking off the~~ appropriate items below:

1. ☐ Yes. I have read and understand the Code and I will fully comply with the Code at all times.

2. ☐ Yes. If I so requested, I was given the opportunity to discuss this Annual Declaration with Waterfront Toronto's outside legal counsel.

2. ☐ No. Neither I, nor any Family Member or Business Associate of mine:

a. ~~own or control, directly or indirectly, has any interest in (other than ownership of less than of the shares of a publicly-traded corporation); or~~

b. ~~work for, whether as agent, employee, officer, director, partner, consultant, advisor, provider of financial or technical support, or assist in any capacity,~~

~~a corporation, partnership, or other business type or organization which has an interest in Waterfront Toronto activities or the plan to revitalize the Toronto waterfront, **except as described in Schedule "A"**.~~

OR

~~☐ Yes. As described in Schedule "A" to this Disclosure Statement, I, a Family Member(s), and/or a Business Associate of mine, have an interest in a corporation, partnership, or other business type or organization which has an interest in Waterfront Toronto activities or the plan to revitalize the Toronto waterfront.~~



3.        Yes. I have described all Conflicts of Interest of mine in Schedule "A" to this ~~Disclosure Statement~~Annual Declaration, if any.

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature of Panel Member

\_\_\_\_\_  
Name of Panel Member



SCHEDULE "A" TO ANNUAL DECLARATION

REQUIRED DISCLOSURE



<b>Agenda Item</b>	5 - Criteria Working Group
<b>Purpose</b>	Information / Discussion
<b>Key Message</b>	A proposed report-creation process and report structure has been put forward; the working group is now seeking input and feedback on this process from the larger group.
<b>Areas of note/ Key issues</b>	
<b>Expected Outcome</b>	Approval of process by the full Panel.
<b>Key Takeaways/ Next Steps</b>	The Preliminary commentary based on the Draft MIDP will be prepared.



## **DSAP Evaluation Process – Outline**

### ***Revised Proposed Timeline, per Waterfront Toronto requirements***

<b>Date</b>	<b>Event</b>	<b>Details</b>	<b>Status</b>
<b><i>Draft Review Stage (Feedback – not evaluation)</i></b>			
<b>July 3</b>	<b>Criteria Committee Meeting</b>	<b>Finalize process</b>	<b>Occurred</b>
<b>July 8</b>	<b>E-mail to DSAP</b>	<b>Instructions from Criteria Committee</b>	<b>Occurred</b>
<b>July 15 - 25</b>	<b>WT Public Consultation Events</b>	<b>7 library pop-ups; 4 public meetings</b>	<b>In Process</b>
<b>July 22</b>	<b>DSAP Meeting</b>	<b>Discussion / approval of review process; opportunity to ask SWL clarifying questions</b>	<b>Scheduled</b>
<b>July 31</b>	<b>Public Feedback deadline</b>	<b>Deadline for comments to be submitted to WT via online form, email</b>	
<b>August 2</b>	<b>Feedback to Secretary / Sub-topics leads</b>	<b>Provide preliminary comments to Secretary</b>	
<b>August 9</b>	<b>Draft Preliminary Commentary on MIDP</b>	<b>Secretary circulates draft report to DSAP</b>	
<b>August 16</b>	<b>Preliminary Commentary To WT, SWL</b>	<b>Preliminary commentary based on Draft MIDP approved by DSAP members, submitted to Waterfront Toronto and provided to Sidewalk Labs</b>	
<b>Early September (TBC)</b>	<b>2nd Round of Public Consultations</b>	<b>A second round of more focused public consultation. Timing / details TBC.</b>	
<b>September 12</b>	<b>DSAP Meeting</b>	<b>Discussion with SWL on how considerations from Preliminary Report will be addressed.</b>	<b>Scheduled</b>
<b><i>The below are based on a revised MIDP being received by September 1 and will be adjusted should any delay occur. DSAP will be provided 6 weeks to complete the final report, from the submission of the final MIDP.</i></b>			



<b>September 30</b>	<b>Feedback to Secretary / Sub-topic Leads</b>	<b>Deadline for provision of additional comments based on changes to MIDP, SWL response to Preliminary Commentary, or any other relevant factor</b>	
<b>October 7</b>	<b>Draft Final Report</b>	<b>Secretary completes drafting of Final Report and circulates to DSAP, asking for comments and reminding about opportunity for minority report(s)</b>	
<b>October 14</b>	<b>Final Report to WT</b>	<b>Final Report, based on revised MIDP, submitted to Waterfront Toronto</b>	

## Drafting Process

### Process

While DSAP's report will remain independent from Waterfront Toronto, WT will provide a resource (Vance Lockton) to act as **secretary** in support of the drafting process. This resource will be tasked with capturing the input of the DSAP, and will work closely with the DSAP sub-topic leads (which will be identified at the July 22 DSAP meeting).

In particular, the report drafting process will use the following iterative process:

1. Designated DSAP **subtopic leads** will facilitate the process and supervise Secretariat work.
2. **Subtopic leads** will solicit input on one or more topics from *all* DSAP panelists
3. The **secretary** will combine this input into a cohesive text – including expressing where panelists had differences of opinion.
4. Text will be reviewed by the **subtopic leads**, who will identify revisions to be made by the secretary (returning to step 2) and/or the need for sending to the broader group for input (returning to step 1).

All DSAP members will have the opportunity to approve any DSAP-attributed report, including the Preliminary Commentary and Final Report.

### 2-Stage Process

Per the schedule above, a two-stage process is envisioned for evaluation of the MIDP. First, a **Preliminary Commentary on the MIDP** will be created. It is envisioned that this commentary will focus on: (i) preliminary impressions of the MIDP; (ii) questions to, or further information needed from, Sidewalk Labs; and (iii) suggested amendments to the MIDP. The Preliminary Commentary is not intended to contain recommendations to Waterfront Toronto or any conclusive evaluation of either the MIDP or its individual components.



Following this, Sidewalk will be given the opportunity to respond to the Preliminary Commentary - by providing further information, amending the MIDP, etc. Once final information is available, DSAP will begin the process of drafting its **Final Report**. A proposed structure for this report is given below. DSAP members will have the opportunity to independently draft minority report(s), as they see fit.

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### *Waterfront Toronto Digital Principles*

Waterfront Toronto has been in the process of drafting a set of digital principles, which would apply to *any* development in the Waterfront. This includes the current Quayside project - nothing will be excluded from, or grandfathered out of, the application of these principles.

DSAP will be consulted on these Principles, the current draft of which are available at <link to come>. Waterfront is seeking to have them recommended for approval at the July 22 DSAP meeting.

Once these Principles have been finalized, evaluators should feel free to reference them in making any comments on the MIDP - in particular, noting any gaps or deficiencies that would need to be addressed prior to implementation of any approach or proposal.

---

### **Report General Structure**

1. About the DSAP
  - a. Mandate & Members
  - b. About this Report
    - This report will cover the Digital Innovation chapter, IP considerations, and any broader discussions
    - Report intends to be constructive as well as critical – highlighting positives, raising issues that should be addressed in negotiations and/or implementation agreements, and identifying “bright line” issues that (in the opinion of the DSAP) need to be addressed before moving forward with any development.
      - It will also be beneficial to either: (i) compare against both current practice and best practice, or (ii) identify which one will serve as the basis for comparison. (For instance, it is likely that some proposals will improve on the status quo, but still have issues.)
2. Overall impression(s) of the MIDP

*Motivating Question: How should the report be framed?*

*(For instance, DSAP members have suggested that draft versions of the chapter read more like a ‘wish list’ than actual plans, making it challenging to provide a detailed evaluation)*
3. Key Digital Innovation proposals

Proposed Motivating Questions (for each of the below)

  - *Does this solution advance Waterfront Toronto’s objectives for Quayside? Does it advance the public interest?*



- *Do you have any concerns with this proposal? Are there any measures that Sidewalk Labs, Waterfront Toronto, or government take to mitigate these concerns?*
- *Is there any information missing that you would need to make an evaluation?*
- *For each element, if Waterfront Toronto opts to move forward, are there any matters that should be addressed and/or conditions that should be imposed in implementation agreements?*

<NOTE: I have proposed addressing the “data standards” section in the “Open by Default” evaluation criteria, and the proposed launch services in section 5>

- a. Digital Infrastructure
  - i. Ubiquitous Connectivity
  - ii. “Koala” Standardized Mounts
  - iii. Decentralized Credential System
- b. Urban Data Trust and Responsible Data Use Assessment process  
Additional Motivating Question - Process
  - *Are there concerns about Sidewalk’s role in proposing the Urban Data Trust?*

Additional Motivating Question - Mechanism

- *Setting aside concerns about the provenance of the proposal – if adopted, would it create a “new global standard in data privacy and digital governance”? Is this a proposal that a government might want to pursue?*
- *Are there any problems or outstanding issues with the proposal?*

4. Intellectual Property
  - a. *Will this proposal stimulate growth in the Canadian technology sector?*
  - b. *Will this proposal benefit Canadian companies, including SMEs?*
  - c. *Does the proposal provide adequate value to Canadians?*

5. Launch Services – Implementation Considerations

*Sidewalk Labs has proposed a set of ten “launch services.” It is likely that none of these services will be described in sufficient detail to allow for a thorough evaluation. Further, each of these services is also described within another Pillar – and the evaluation lead for each Pillar will examine the benefits provided by the service. Thus, I would recommend DSAP’s focus be on implementation considerations, both as a whole (e.g. “For each, a PIA/RDUA would be needed”) and individually (e.g. “Service X raises concern Y, which must be addressed and/or could be addressed by measure Z”)*

6. Evaluative Considerations

- a. Compliance with all applicable laws and regulations
  - *As best as can be determined, does the proposal meet compliance obligations?*
  - *If not, in what way is it non-compliant?*



- *If there is insufficient information to determine this, is it acceptable to delay the determination (and address it, for instance, in implementation agreements)?*
- b. New global standards in data privacy and digital governance
- *Does the proposal create a “new global standard in data privacy and digital governance?”*
  - *Does the answer depend on the creation of an Urban Data Trust and use of the Responsible Data Use Assessment?*
- c. Ethical technology development and deployment
- *Does the proposal meet the requirement for ethical development and deployment of technology?*
  - *What standard are you using to measure whether this? What standard should be used?*
- d. Open by default
- *Are the proposed systems and platforms designed to be open by default – deploying minimal proprietary architecture in order to foster innovation, promote competition, create freedom of consumer choice?*
    - *This includes the use of Open APIs, system components that conform to open standards, the use of non-proprietary architectures, and the sharing of data with government open data catalogues/portals.*
- e. Data and tech sovereignty
- *Does the proposal use protocols, standards and operating agreements do not foster monopolies, barriers to entry or lock-in to a specific vendor or technology?*
  - *Does the proposal ensure data independence and portability?*
  - *Are granular approaches to data residency and routing described?*
  - *Is there public transparency on jurisdiction and location for all digital assets?*
  - *Is data stored, processed and routed in Canada unless there is an approved, documented reason that precludes it?*
- f. Third-party data sharing
- *Are there sufficient protections against and/or commitments made to prevent third-party data sharing?*
- g. Data monetization / attentional exploitation
- *Is data and/or attention being monetized or otherwise exploited?*
  - *Are any proposed “nudges” to change behaviours reasonable?*
- h. Transparency
- *Is the proposal sufficiently transparent with respect to systems, d*
  - *If not, is there a commitment to such transparency before implementation of any technology?*



- i. Experimentality
    - *Does the test bed facilitate public experimentation?*
    - *Is public or corporate experimentation prioritized?*

<Note: possibly combinable with criteria “l”, on public benefit?>
  - j. Sustainability / Resilience
    - *Are proposed systems and technologies – and, in particular, those related to critical infrastructure – sustainable and resilient? Do they have a clearly defined failure case?*
  - k. Human centricity
    - *Is the proposal “human-centric” – in particular, avoiding technology for technology’s sake?*
  - l. Public benefits / public interest / inclusiveness
    - *Are benefits to the public prioritized?*
    - *Will the proposal benefit \*all\* residents, employees, students and visitors to the area? Will any group be excluded from benefits, or be negatively impacted?*
  - m. Accountability
    - *Does the proposal adequately commit Sidewalk Labs to effective accountability and compliance mechanisms?*
7. Other perspectives
- a. Edge cases
8. Contextual Considerations
- a. Sidewalk Labs / MIDP
    - i. *Relevant information from the DSAP’s experience with Sidewalk Labs*
    - ii. *Relevant considerations re: SWL’s relationship to Alphabet*
    - iii. *Process concerns (public consultation; accessibility of proposal)*
  - b. Any other considerations not specifically related to the Proposal
    - i. *Is the status quo regulatory environment appropriate for this project?*
    - ii. *Is the project well-informed by ‘smart-city’ experiences, guidelines, and standards elsewhere?*
9. Recommendation
- <Recommendation to the Waterfront Toronto board based on digital strategy considerations.>



<b>Agenda Item</b>	6 – Discussion with Sidewalk Labs
<b>Purpose</b>	Information / discussion
<b>Key Message</b>	Following an opening presentation from Sidewalk Labs, Panelists will have the opportunity to provide feedback and/or ask clarifying questions about elements of the MIDP relevant to the Panel's scope, to Sidewalk Labs staff.
<b>Areas of note/ Key issues</b>	The focus of the Sidewalk Labs' presentation will be on Volume III materials (The Partnership) as it relates to the digital and intellectual property components as this has not been presented to the Panel in the past.
<b>Expected Outcome</b>	Panelists will be in a position to proceed with their review and of the MIDP and preparation of the preliminary commentary.
<b>Key Takeaways/ Next Steps</b>	



## Digital Strategy Advisory Panel (DSAP)

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# MIDP Update

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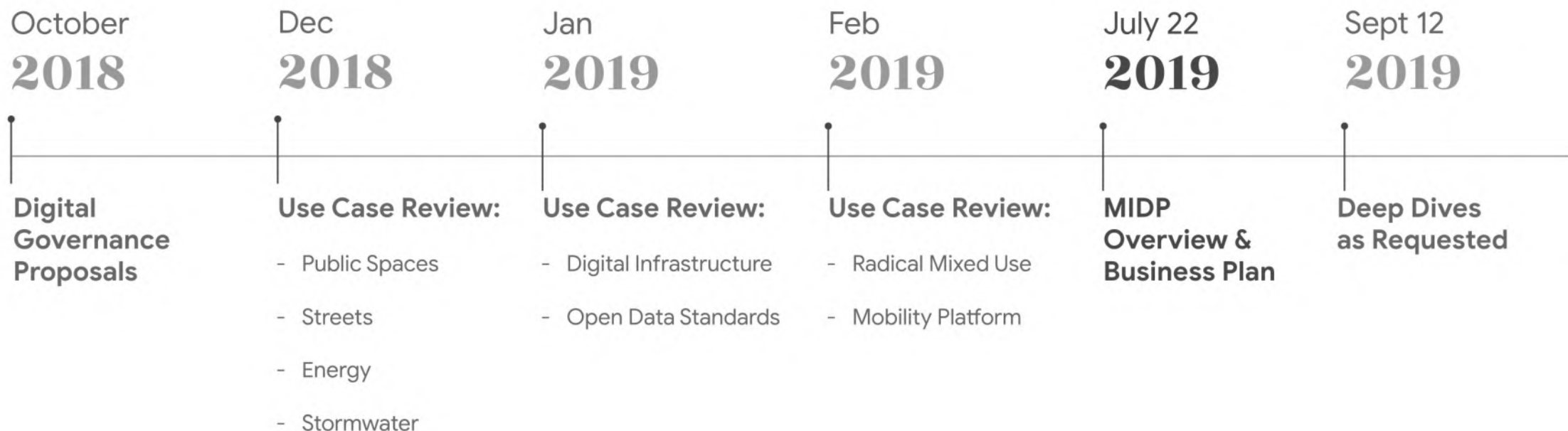
Josh Sirefman, Co-Founder + Head of Development

July 22, 2019

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# DSAP Presentations to Date





# Toronto Tomorrow



Overview

The Plans

The Urban Innovations

The Partnership

Responding to Waterfront Toronto's RFP, the Plan provides the opportunity to lay the foundation for achieving Waterfront Toronto's priority outcomes



# Volume 1 — The Plans



## Overview of Volume 1

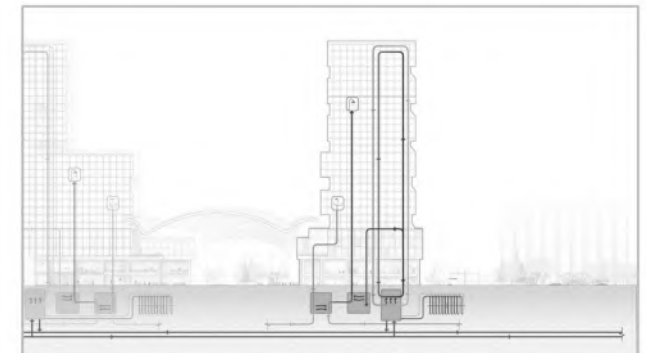
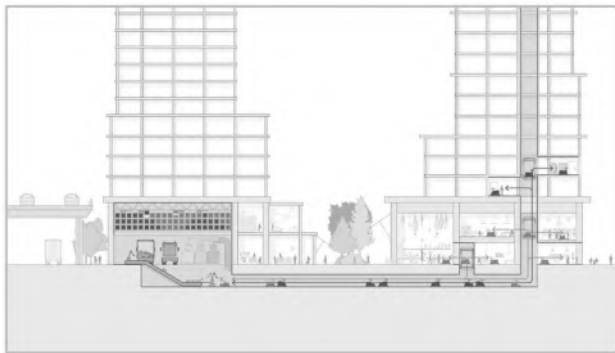
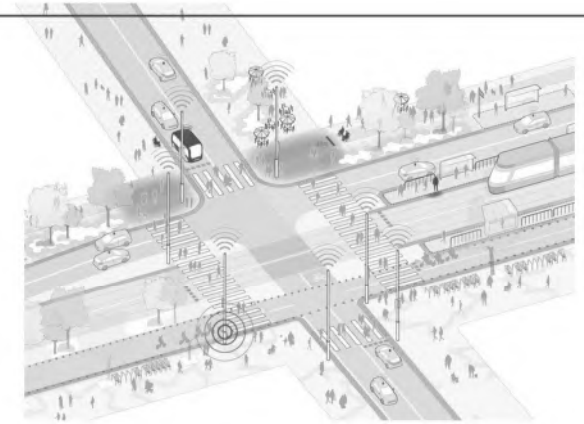
- 1 A detailed integrated physical and digital development plan for Quayside**
- 2 The application of the innovations to the geography of the River District**
- 3 A description of the economic impact of pursuing an innovation agenda**



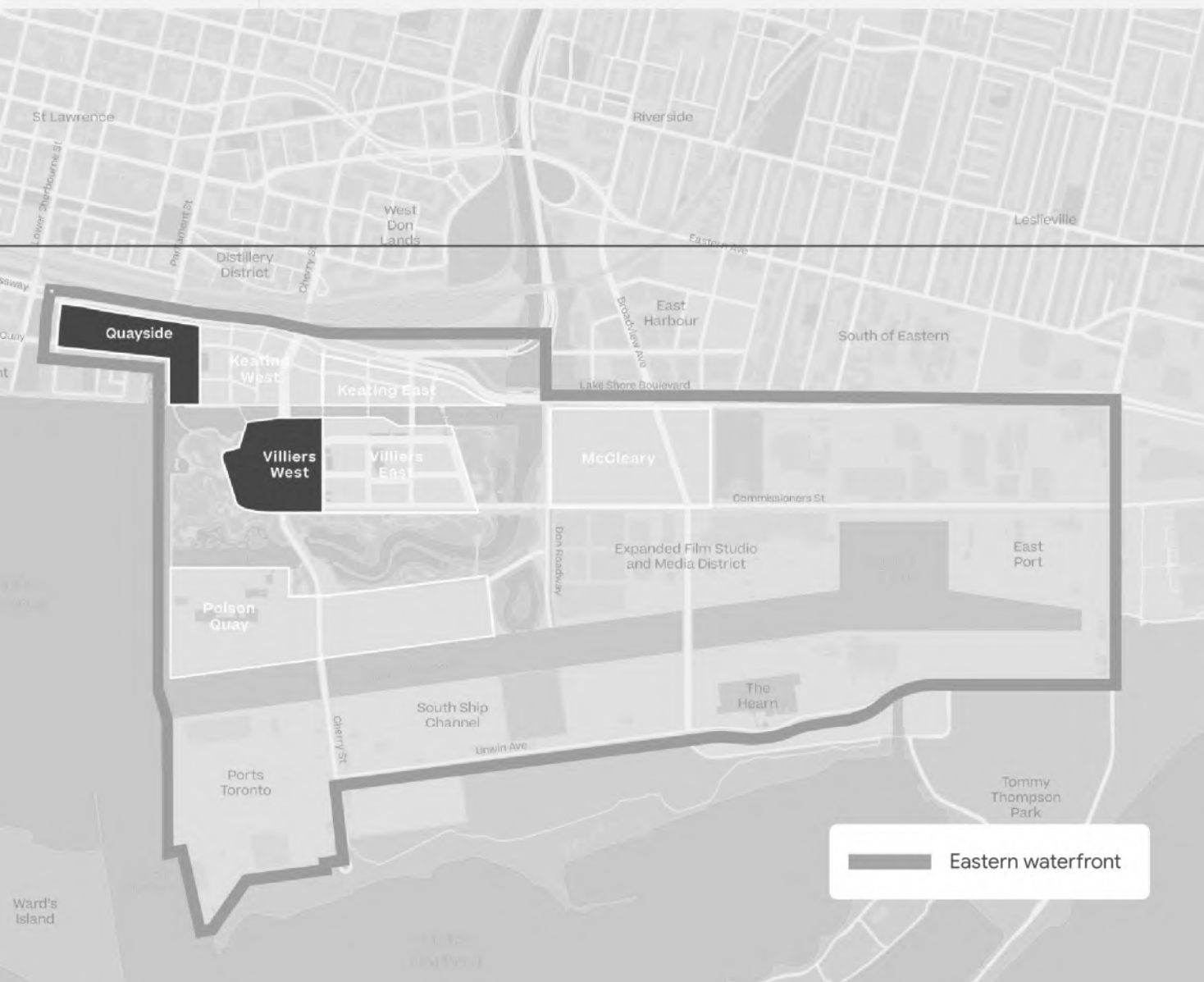




# “How it Works” focuses on human experience and how innovations are integrated into physical site (MIDP Vol 1 pages 96-243)

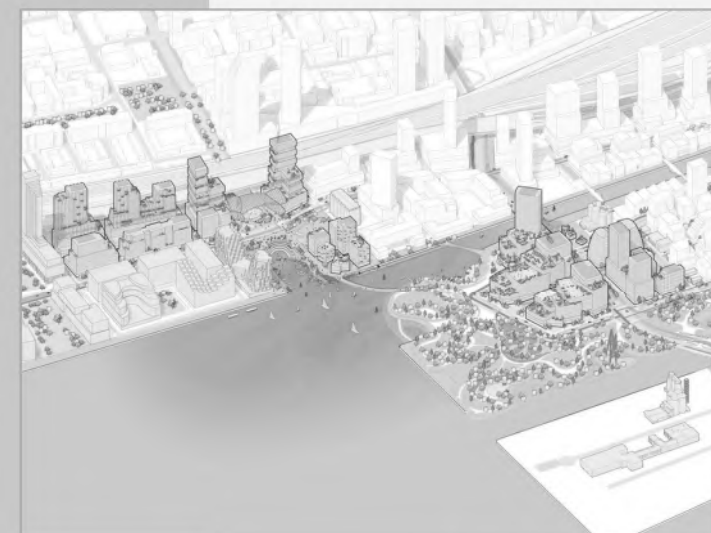






## ers West

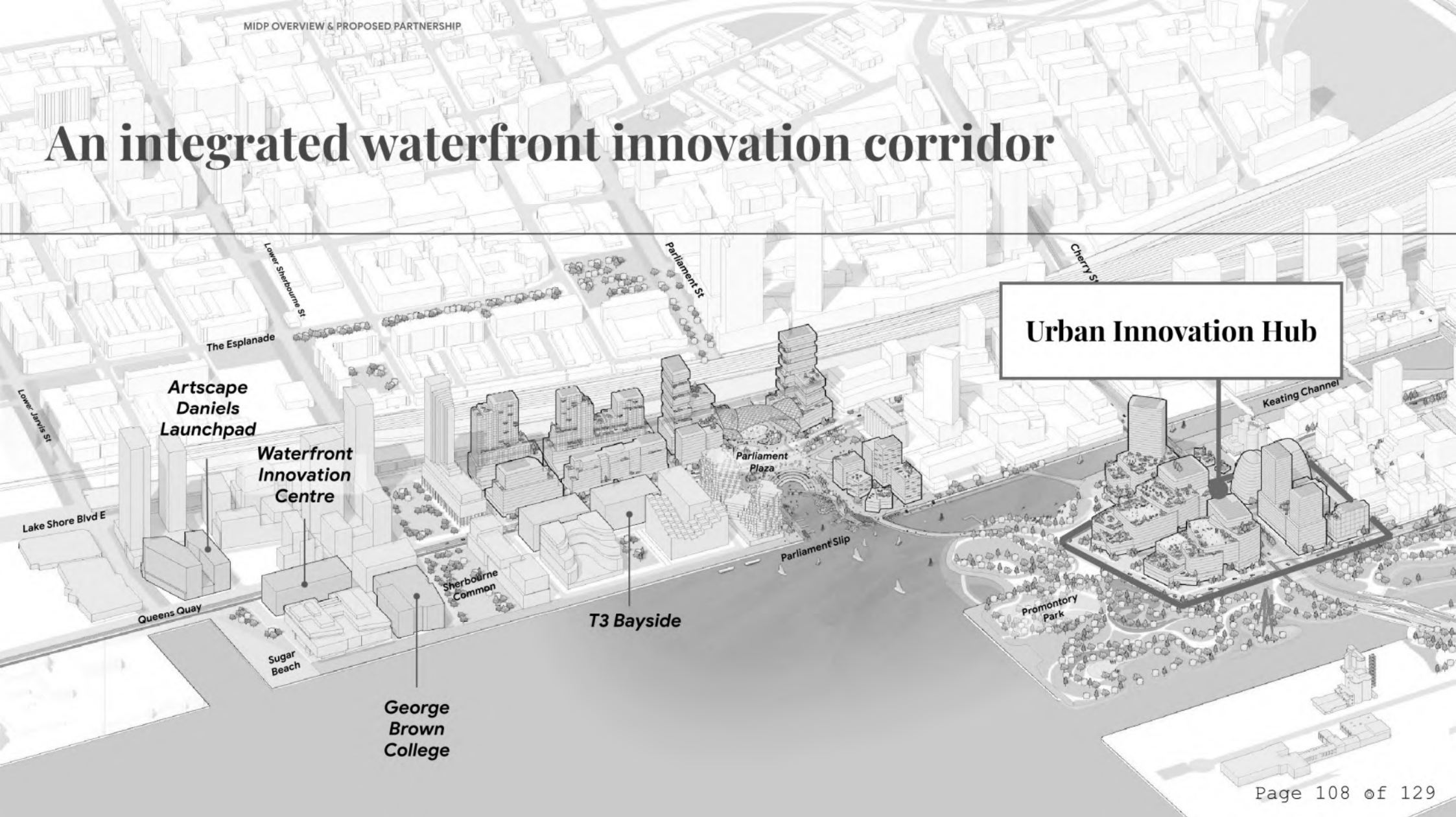
at Quayside, the Plan proposes  
ovations be extended into Villiers  
alk Labs would work with  
Toronto and local partners to  
urban innovation centre.



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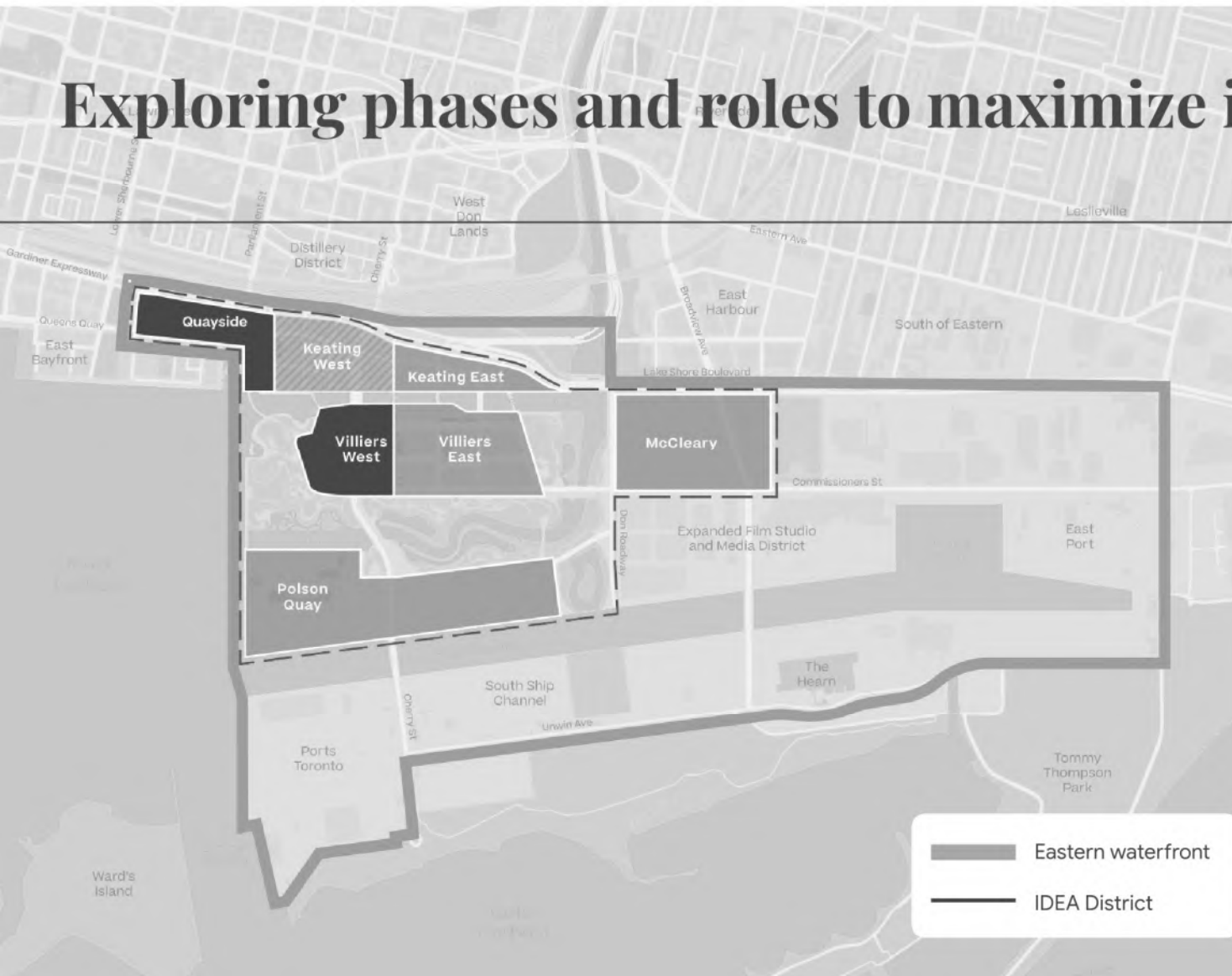


# An integrated waterfront innovation corridor





# Exploring phases and roles to maximize impact



If the innovations piloted in Quayside and Villiers West are successful, government could choose to apply them to a broader area, known as the Innovative Development and Economic Acceleration (IDEA) District.



# Volume 2 — Urban Innovations



## Overview of Volume 2

Volume 2 provides an in-depth exploration of the urban innovations, organized around the following five key areas:

- 1 Mobility**
- 2 Public Realm**
- 3 Buildings & Housing**
- 4 Sustainability**
- 5 Digital Innovations**

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# Some of the proposed innovations and how they contribute to achieving priority outcomes

## PRIORITY OUTCOMES

### Job Creation & Economic Development

- Timber factory
- Library of building parts
- Sidewalk Digital Fabrication
- “Loft” spaces
- Flexible wall systems
- Outcome-based building code
- Ground-floor “stoa” spaces
- Seed Space flexible retail platform

### Sustainability & Climate Positive Development

- Low-energy buildings
- Active energy management tools
- Advanced power grid
- Thermal grid
- Innovative utility bill
- Smart disposal chain
- Pneumatic tube system
- Anaerobic digestion facility
- Active stormwater management
- Electric vehicle infrastructure
- Mass timber construction
- Shikkui plaster

### Housing Affordability

- “Shared equity” units
- “Affordability by design”
- Factory-based construction
- Condo resale fee
- Waterfront Housing Trust
- Efficient unit design
- Co-living units
- Care Collective
- Civic Assembly

### New Mobility

- Pedestrian and cycling infrastructure
- New mobility services (i.e EV car-share)
- Mobility subscription package
- “People-first” street types
- Accessibility initiatives
- Freight “logistics hub”
- Mobility management system
- District parking management
- Dynamic curbs
- Adaptive traffic signals
- Modular pavement

### Urban Innovation

- Ubiquitous connectivity
- Standardized physical mounts
- Open, published standards
- Urban Data Trust
- Responsible Data Use
- Security and resiliency
- Open access channels
- Shared programming infrastructure
- Outdoor-comfort system
- Public realm assets map
- Generative design
- Mist-based sprinklers
- Low-voltage digital power
- Collaborative civic engagement tool



# A higher standard for privacy and data governance

## PROPOSED FRAMEWORK

**The public deserves a higher standard for privacy and data governance.**

Building on existing privacy laws we propose an independent, government sanctioned **Urban Data Trust** to:

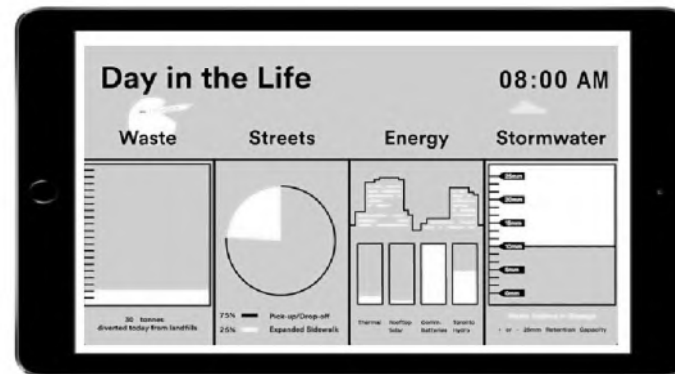
**Establish Responsible Data Use Guidelines** that apply to all entities, including Sidewalk Labs

**Approve and oversee** proposed collections and uses of "urban data" (information gathered in the physical environment) through rigorous use of a Responsible Data Use Assessment (RDUa)

**Make publicly accessible** data that could reasonably be considered a public asset and is properly protected

**Improve transparency** by publishing RDUa summaries and showing the location of approved devices on a publicly accessible map

## USE CASES: FOUR EXAMPLES



**Waste, Streets, Energy, and Building Code.**

4 examples of de-identified or non-personal data collected

## THREE SIDEWALKLABS COMMITMENTS



**No selling personal information**



**No using personal information for advertising**



**No disclosing personal information to third parties without explicit consent**



# The Partnership



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# The proposal centres on strong public-sector control

## Three elements of the IDEA District strategy

# 1

**A strong public administrator** in an oversight role

# 2

**A regulatory framework that would foster the necessary conditions** for delivering on the promise of the MIDP

# 3

**A set of financing tools** that would enable the project to leverage its own value for implementation

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# Sidewalk Labs' objectives

## Demonstrate the impact of innovations

- Achieve significant advancement in urban quality of life
- Sufficient scale to demonstrate the value of an integrated approach
- Leverage the opportunity of holistic, rather than piecemeal, planning

## Earn a reasonable return

- Sidewalk Labs is a commercial venture, and although mission-driven, is a subsidiary of a publicly-owned company that answers to its investors and needs to justify its investments
- Quayside, in isolation, is anticipated to result in subpar returns. However, when considered in aggregate with the proposed development at Villiers West, Sidewalk Labs expects the combined real estate project to result in a blended return in line with market expectations, in large part due to the value the Google Canadian headquarters brings to Villiers West.
- Transaction structure reflects profit-sharing with Toronto for (1) higher than expected returns and (2) unique testbed conditions, to enable Toronto to share in the financial value created from products

Critically, Sidewalk Labs is not seeking to sell data or personal information, nor is it motivated by a desire to export Canadian talent or intellectual output to the United States. **These activities are not, nor have they ever been a part of Sidewalk Labs' business model.**



# Proposed transaction principles

**DEVISE** a transaction to achieve Waterfront Toronto's public objectives

**STRUCTURE** the role of Sidewalk Labs to leverage its strengths

**SCALE** the project to achieve the desired outcomes

**ESTABLISH** strong public sector oversight





**USE** proven approaches where possible

**PHASE** development to manage risk

**ALIGN** financial interests







# Sidewalk Labs' proposed roles as partner to the public sector

Sidewalk Labs Proposed Role	Description
 <b>Development of Real Estate and Advanced Systems</b>	In partnership with local development entities, lead development to prove out the viability of the innovation agenda at Quayside, extend it to Villiers West, and enable the accelerated development of a new hub for economic growth.
 <b>Innovation Planning, Design, and Implementation</b>	Provide advisory, technical, and management services to the public administrator to implement the MIDP's innovation strategy.
 <b>Technology Deployment</b>	Serve as technical advisor in sourcing the majority of technologies from existing vendors. For a select few where the solution doesn't exist in the market, Sidewalk Labs would develop the product.
 <b>Optional Infrastructure Financing</b>	Provide optional financing to accelerate delivery of the LRT system, and advance development of municipal and advanced infrastructure systems.







# Each proposed role includes specific commitments...

Sidewalk Labs Proposed Role	Description
 <b>Development of Real Estate and Advanced Systems</b>	<ul style="list-style-type: none"> <li>• \$900 million equity investment with local partners to support a \$3.9 billion project across Quayside and Villiers West</li> </ul>
 <b>Innovation Planning, Design, and Implementation</b>	<ul style="list-style-type: none"> <li>• Multi-year advisory services</li> <li>• \$80 million investment in a tall timber factory alongside local partners</li> <li>• \$10 million in seed funding for an Urban Innovation Institute</li> <li>• \$10 million investment in venture fund focused on Canadian urban innovation startups</li> </ul>
 <b>Technology Deployment</b>	<ul style="list-style-type: none"> <li>• Deployment of limited number of Sidewalk Labs technologies, such as physical mounts and dynamic curb</li> <li>• 10% profit sharing with government for 10 years for certain technologies first deployed in IDEA District</li> </ul>
 <b>Optional Infrastructure Financing</b>	<ul style="list-style-type: none"> <li>• Up to \$400 million in optional financing from Sidewalk Labs</li> </ul>



# ...and associated business models

Sidewalk Labs Proposed Role	Description
 <b>Development of Real Estate and Advanced Systems</b>	<ul style="list-style-type: none"> <li>Standard real-estate economics (e.g., condo sales and rent) with a projected market return across Quayside and Villiers West               <ul style="list-style-type: none"> <li>Waterfront Toronto to receive “earn-out” payment if Quayside returns significantly exceed expectations</li> </ul> </li> </ul>
 <b>Innovation Planning, Design, and Implementation</b>	<ul style="list-style-type: none"> <li>Advisory services provided at cost</li> <li>Stand-alone economics for investments in a venture fund and tall timber factory</li> </ul>
 <b>Technology Deployment</b>	<ul style="list-style-type: none"> <li><b>Sidewalk Labs “purposeful solution” technologies provided at cost in Toronto, and at market rates to other places around the world</b></li> </ul>
 <b>Optional Infrastructure Financing</b>	<ul style="list-style-type: none"> <li>Market return for the magnitude and risk associated with the agreed-upon financing structure</li> </ul>
<b>PERFORMANCE PAYMENTS</b>	Compensation, at the end of the project, tied to success in accelerating development, achieving priority outcomes, and generating new economic activity and government revenues.



# Canadian firms would deliver most of the project

## Real Estate

# 84%

**84% of the IDEA District's real estate development would be completed by others, not Sidewalk Labs.**

Sidewalk Labs would partner with local development firms at Quayside and Villiers West (16% of the IDEA District)

## Technology

# \$20 Million

**Other firms would supply vast majority of technology products for the IDEA District.**

Sidewalk Labs would arrange a series of projects and investments to spur the development of an urban innovation ecosystem, including:

- **New Urban Innovation Institute** (\$10m seed funding), in partnership with local institutions
- **New venture fund (\$10m)** focused on Canadian startups, alongside local investors
- **New Google Canadian headquarters** on Villiers Island

## Intellectual Property

# 10% Profit Sharing

Sidewalk Labs' approach to Intellectual Property includes:

- **10% profit-sharing with the public sector for 10 years** of certain Sidewalk Labs products first deployed in the IDEA District
- **Patent pledge allowing third-parties** to innovate on top of Sidewalk Labs' Canadian digital innovation patents



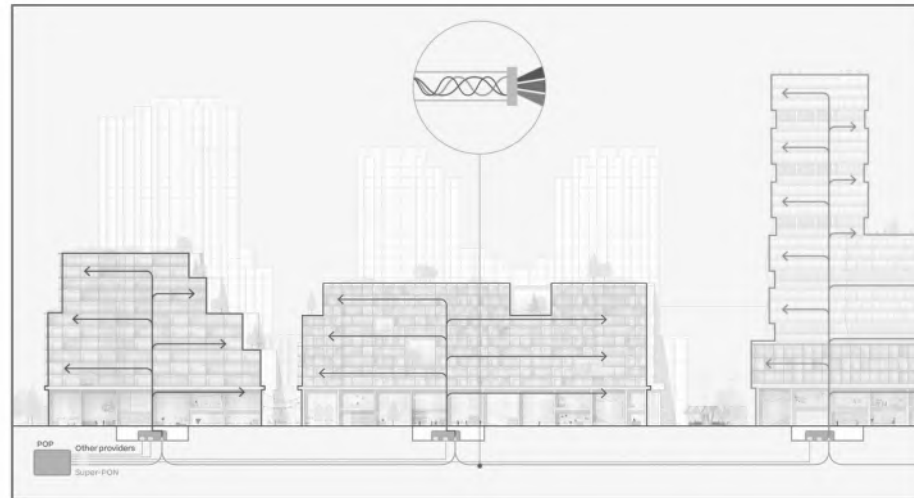
# Procurement strategy designed to support Canadian companies

## Overview

- In the majority of circumstances, the technologies needed to advance the project would be purchased, commissioned, or licensed from existing vendors. For these solutions, Sidewalk Labs' responsibilities would be as a technical advisor and procurement lead to the public administrator.
- Where a key solution does not yet exist in the market, Sidewalk Labs is committed to developing it — by identifying appropriate technology partners to carry out the work, by integrating and enhancing existing solutions, or by undertaking the research and development itself to create and test the solution for deployment as part of the project.

## Example: Super-PON

Sidewalk Labs has proposed to work with Waterfront Toronto's broadband partner to develop the first Super-PON internet network in Canada, which would power ubiquitous connectivity in the project area.





# Profit sharing proposal with the public sector

## Definitions

- **Purposeful Solutions** - provided at cost through a project-specific, direct award process for technologies critical to achieving aspects of the MIDP AND there are no suitable marketplace alternatives.
- **Testbed-Enabled Technology** - products or other solutions that would not have been developed but for the opportunity created by the project
  - Toronto project geography is used in the first deployment at scale
  - Public stakeholders must create the conditions for innovation (eg approvals, access, mandates)
- **Testbed-Enabled Technology** is a separate and distinct matter from the designation of a purposeful solution.

## Profit Sharing

**GOAL** - Align the interests between Sidewalk Labs and the Public Sector

- First of its kind program that only applies to **Testbed-Enabled Technology**
- **10% profit share for 10 years** where the 10 year time starts at the sale to second customer (proof of commercialization)
- **The Implementation Agreements** would establish a process to determine, in advance, whether the testbed-enabled technology criteria have been met



# Patent Pledge

## Supporting the Growth of Canada's Innovation Ecosystem

Sidewalk Labs is making a "patent pledge" to enable any startup, non-profit, government agency, or independent entrepreneur to build on Sidewalk Labs' Canadian Patents without fear of litigation or assertion of patent infringement.

- **Sidewalk Labs would pledge not to assert its digital innovation-related hardware or software patents issued in Canada** ("Canadian Patents") against third parties who develop and sell innovations that utilize such patents, subject to a defensive termination.
- **In doing so, Sidewalk Labs hopes to further catalyze the growth of the existing innovation ecosystem in Toronto**, supporting the development of Canadian firms and enabling talent and IP developed at the waterfront to contribute back to the local innovation ecosystem.
  - **For example, if Sidewalk Labs obtains a Canadian patent for digital mounts**, a third party could build and sell a product that practices the claims in the patent without concern that Sidewalk Labs would bring a patent infringement lawsuit related to those claims against the party.
  - **Patents would consist of those filed by Sidewalk Labs in Canada** covering software or hardware that enable digital innovations in the IDEA District.
  - **Sidewalk Labs would list the patents included in the pledge over time** and would publish the full content of this pledge on the Sidewalk Toronto website.
  - **The only condition is that those taking advantage of the pledge not assert their Canadian patents** against Sidewalk Labs or its affiliated companies. While Sidewalk Labs hopes that other innovators will join this pledge over time, it would not be required of technology providers for the Sidewalk Toronto project.

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# To proceed, the proposed transaction would involve certain commitments from the public sector

**Partnering with Sidewalk Labs to implement a comprehensive innovation and development strategy**

**Establishment of the IDEA District** with a public administrator, to be extended beyond Quayside and Villiers West at the discretion of government

**Disposition of land for Quayside and Villiers West** at a price that accounts for Waterfront Toronto requirements and is approved by City

**Source a limited number of Sidewalk Labs' products to enable prototyping and deployment at scale**

**Performance payments upon Sidewalk Labs' achievement** of a series of negotiated growth and performance targets

**Public infrastructure commitments**, most notably related to transit



# Estimated economic impact of the proposal

**44,000**

Total permanent direct jobs created  
(reaches 93,000 when including direct,  
indirect, and induced)  
by 2040

**+27,000**

Improvement over traditional approach  
increase in direct jobs

Independent third-party analysis by urbanMetrics inc.

ANNUAL

**\$4.3 billion**

in Municipal, Provincial,  
and Federal tax revenues

**+\$2.8 billion**

Improvement over traditional approach  
increase in annual tax revenues

ANNUAL

**\$14.2 billion**

added to Canadian  
Gross Domestic Product  
(GDP)

**+\$9 billion**

Improvement over traditional approach  
increase in annual value added to GDP

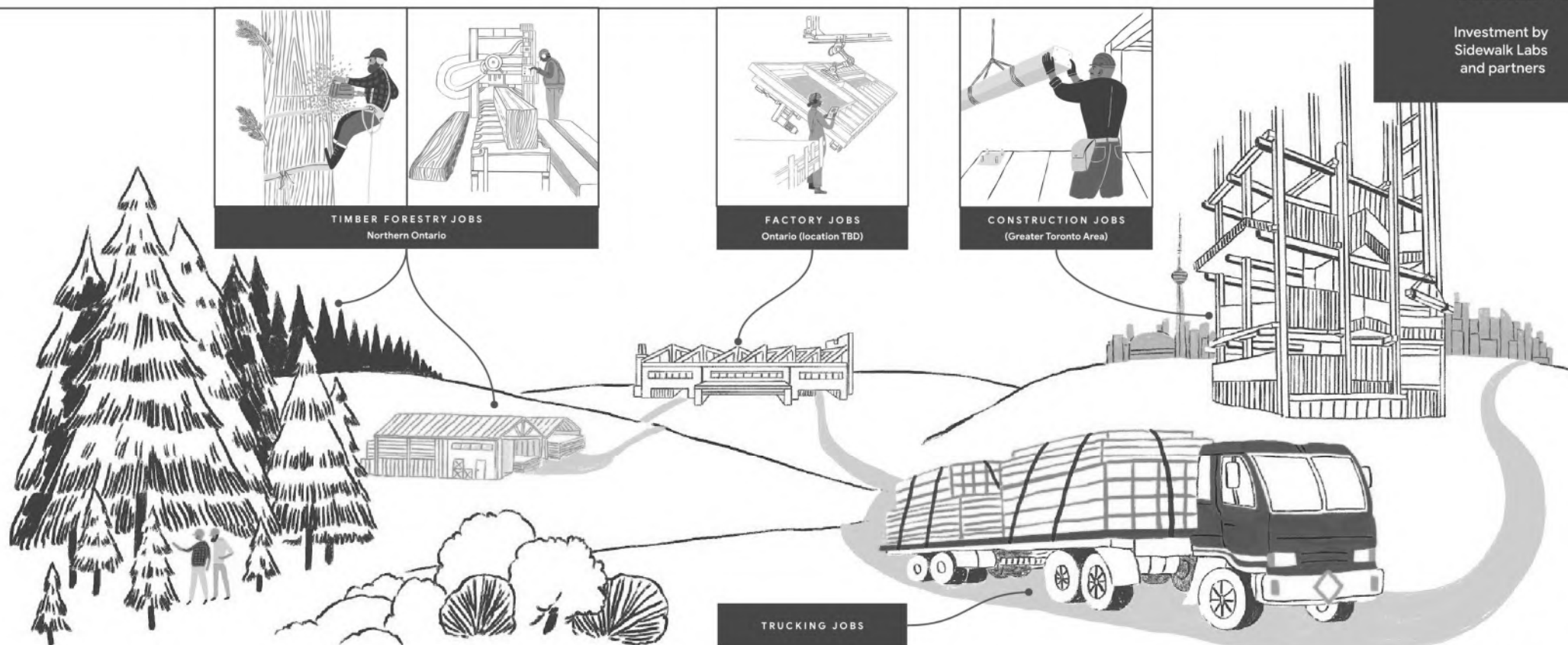
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# Innovations not a standard “smart city,” but focused on new materials and Canadian industries

**\$80**  
million

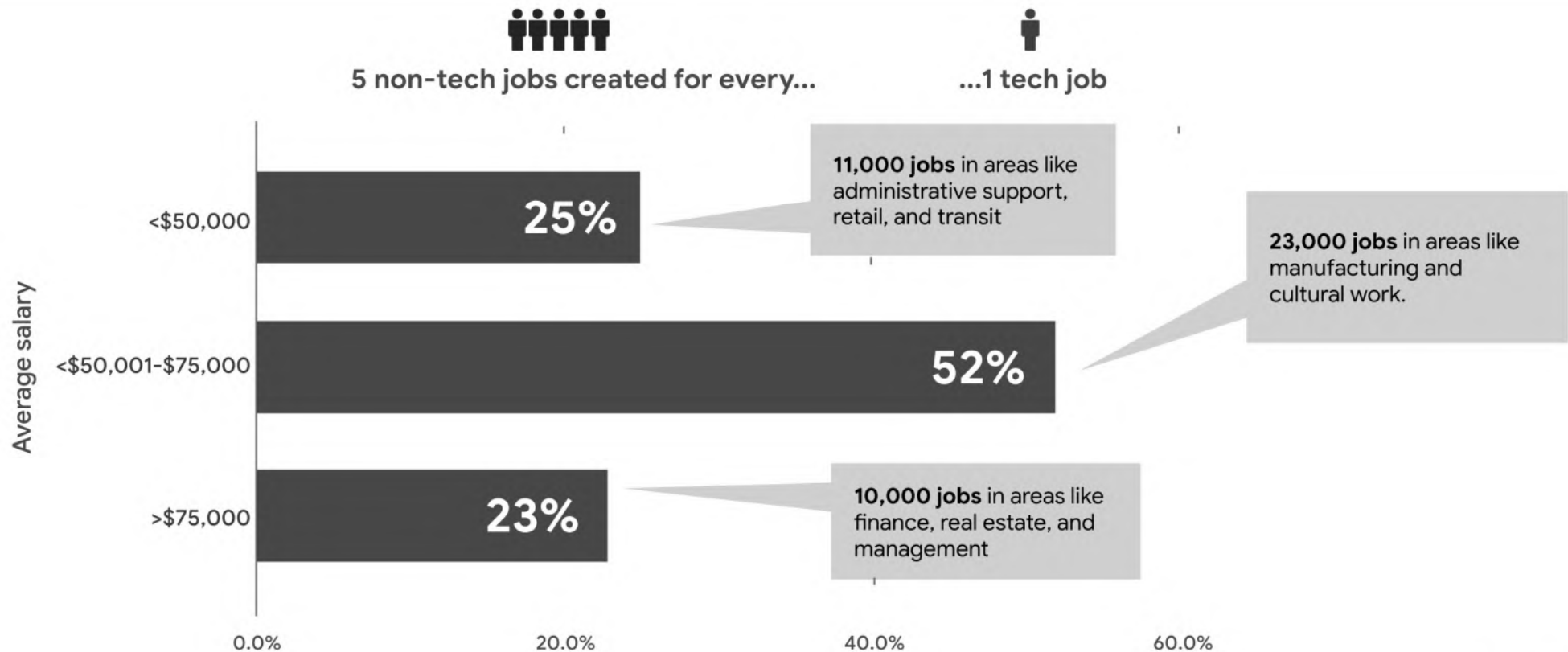
Investment by  
Sidewalk Labs  
and partners



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# Creating new jobs across industries and income levels





# What we believe the MIDP would achieve



**An unprecedented combination of innovations to radically improve urban life** — from housing and sustainability to mobility and open space.



**An economic engine estimated to create 44,000 direct jobs and adding \$14.2 billion annually to Canada's GDP by 2040.**



**A global hub for the urban innovation industry** on Toronto's waterfront, building on the existing innovation corridor with a new centre on the western portion of Villiers Island.



**Thousands of new units of affordable and below-market housing** for low- and middle-income Torontonians.



**A neighbourhood built entirely from timber,** enabled by a new \$80 million Ontario tall timber factory.



**The construction of the Waterfront East LRT** years ahead of schedule.



**A path to the largest climate-positive district** in North America.



**A demonstration project for a higher standard and a strong data governance regime in a "smart city"**

Page 128 of 129



## Digital Strategy Advisory Panel (DSAP)

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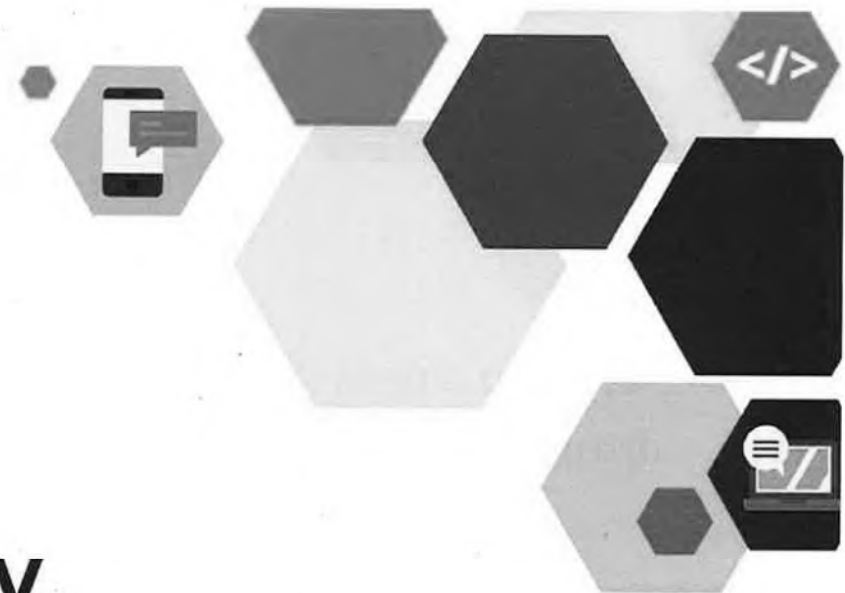
# Thank you

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July 22, 2019

Page 129 of 129





# Ontario's Data Strategy

Presentation to Waterfront Toronto's  
Digital Strategy Advisory Panel

**Ontario.ca/ DataStrategy**





**“Data is transforming the world around us, and the government needs to catch up. This is why the government is supporting the digital transformation through ongoing consultations on the province’s first data strategy. The strategy will be developed based on citizen and business feedback so that government can create a data policy that will help citizens and businesses harness the value of data.”**

– Ontario Budget 2019



# Data Strategy Overview: Three Core Pillars

Ontario is developing a strategy to explore new opportunities for data use across the province and to protect people's rights from growing risks. Ontario's Data Strategy will focus on three key pillars:



## **Promoting Public Trust and Confidence**

*In the face of growing risks, we want to introduce world-leading, best-in-class privacy protections to ensure public trust and confidence in the data economy.*



## **Creating Economic Benefits**

*Enabling Ontario firms to develop data-driven business models and unlock the commercial value of data.*



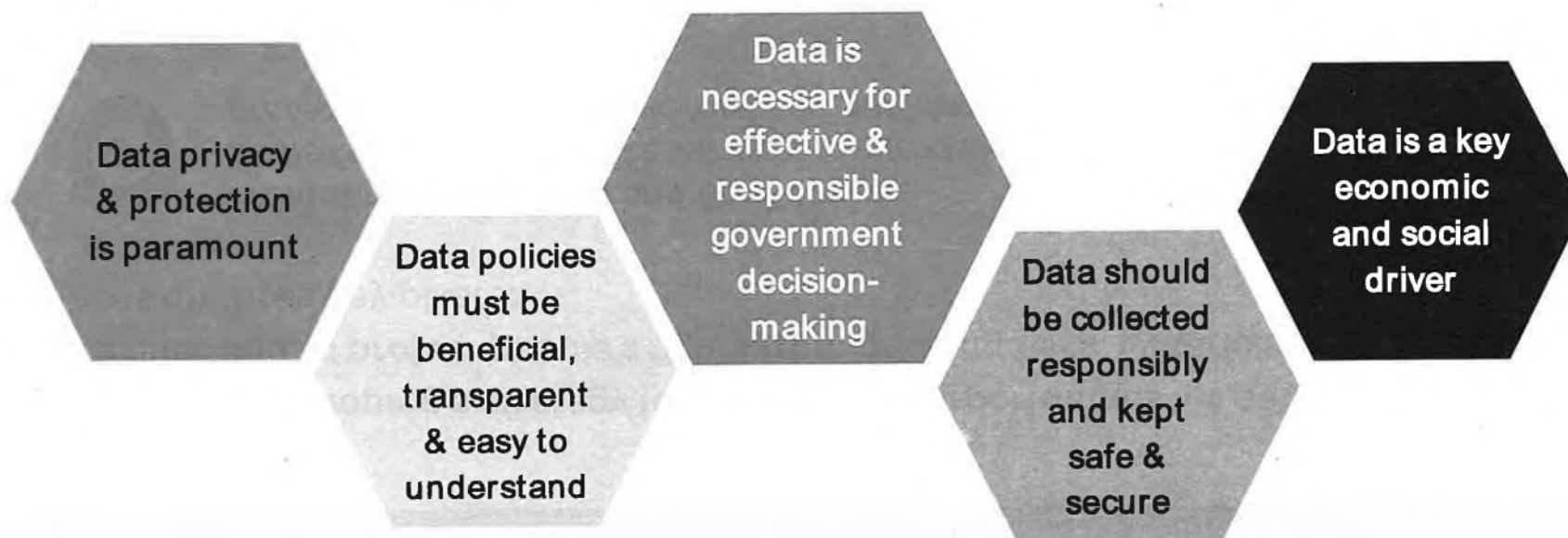
## **Advancing Better, Smarter, More Efficient Government**

*We want to unlock the value of government data by building the data skills and capabilities of Ontario government employees and promoting the use of data-driven technologies.*



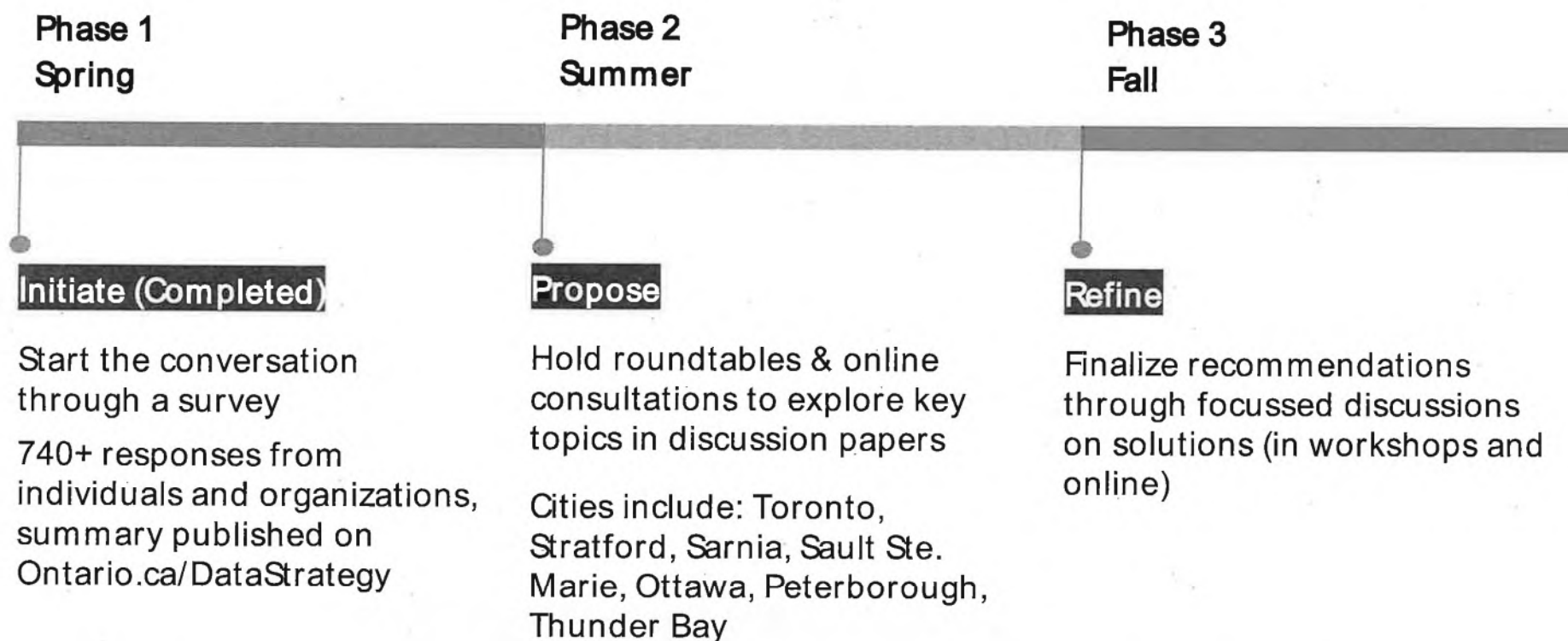
# Data Strategy Principles

We're asking people and businesses across the province to help us develop the core principles of Ontario's Data Strategy. Our initial draft principles are:





# Public Engagement





# Minister's Digital and Data Task Force

The Minister's Digital and Data Task Force is short-term advisory body comprised of leaders and experts in the field of data. Its role is to make recommendations concerning reforms to statute, regulation, policies and programs. Its findings and recommendations will be published in a final report.

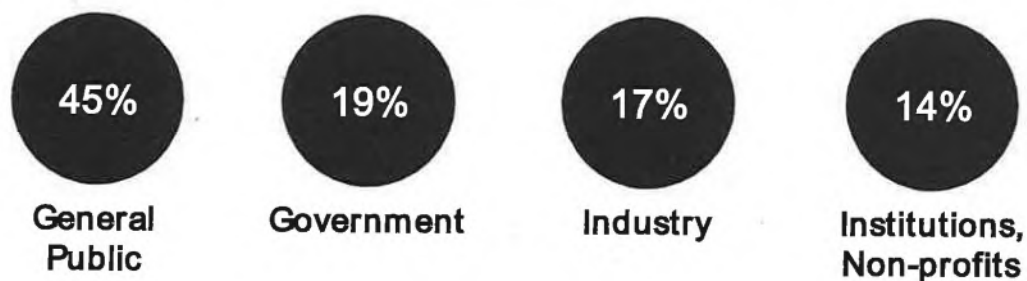
## Members

- Linda Mantia, former SEVP and Group Chief Operating Officer, Manulife Financial (Chair)
- Bryan Smith, Co-Founder and CEO, ThinkData Works (Vice-Chair)
- Bilal Khan, Managing Partner, Deloitte; Head of Deloitte Data
- Avner Levin, Professor, Ted Rogers School of Management, Law & Business Department
- Maithili Mavinkurve, co-founder and COO, Sightline Innovation
- Shyam Oberoi, Chief Digital Officer, Royal Ontario Museum
- Mark Sakamoto, Executive Vice-President, Think Research
- Kirsten Thompson, Partner, Dentons Canada LLP



# Phase 1 Consultations - Overview

On Feb. 5, 2019, the government launched the first round of public consultations through an online survey. We received 770+ completed surveys from a range of respondents:



## What do these numbers mean?

Respondents were able to select how to identify themselves. For example, some people identified themselves as from a government, even if they weren't officially responding on behalf of their government employer.

Respondents were particularly interested in:

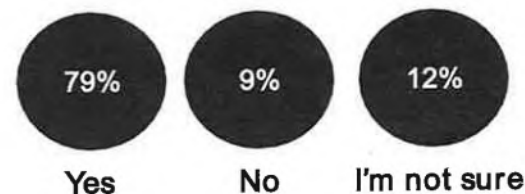
- 76%: Better, smarter government
- 71%: Increasing public trust and confidence
- 56%: Creating economic benefits



# Phase 1 Consultations - Highlights

## Sample questions:

Do you believe that data about people and businesses in Ontario needs stronger protection?



Do you feel that businesses generally do a good job of explaining what they plan to do with your data?



## Key themes

- Current data protections are inadequate, businesses can do a better job of explaining data use, individuals should have more control over their data, and government/independent organizations could have a role to play in addressing these issues.
- Most respondents support increased sharing of government data. However, respondents who identified as members of the public were slightly less supportive.
- Almost half of all respondents were concerned about crime and unauthorized access to data, such as data breaches, identity theft, and hacking.



# What's next?

- Ontario is now moving ahead with the second phase of public consultations. Key activities include:
  - online consultations, delivered through an online engagement platform
  - in-person roundtables with organizations and members of the public, to be held in Toronto, Stratford, Sarnia, Sault Ste. Marie, Ottawa, Peterborough, and Thunder Bay
  - a series of discussion papers to inform consultations
- The Minister's Task Force on Digital and Data will continue to meet, providing advice to the government and informing the strategy
- We'll be publishing the dates of upcoming consultation sessions on [Ontario.ca/DataStrategy](https://Ontario.ca/DataStrategy)



**Learn more and sign up  
for our newsletter at  
[Ontario.ca/DataStrategy](https://Ontario.ca/DataStrategy)**

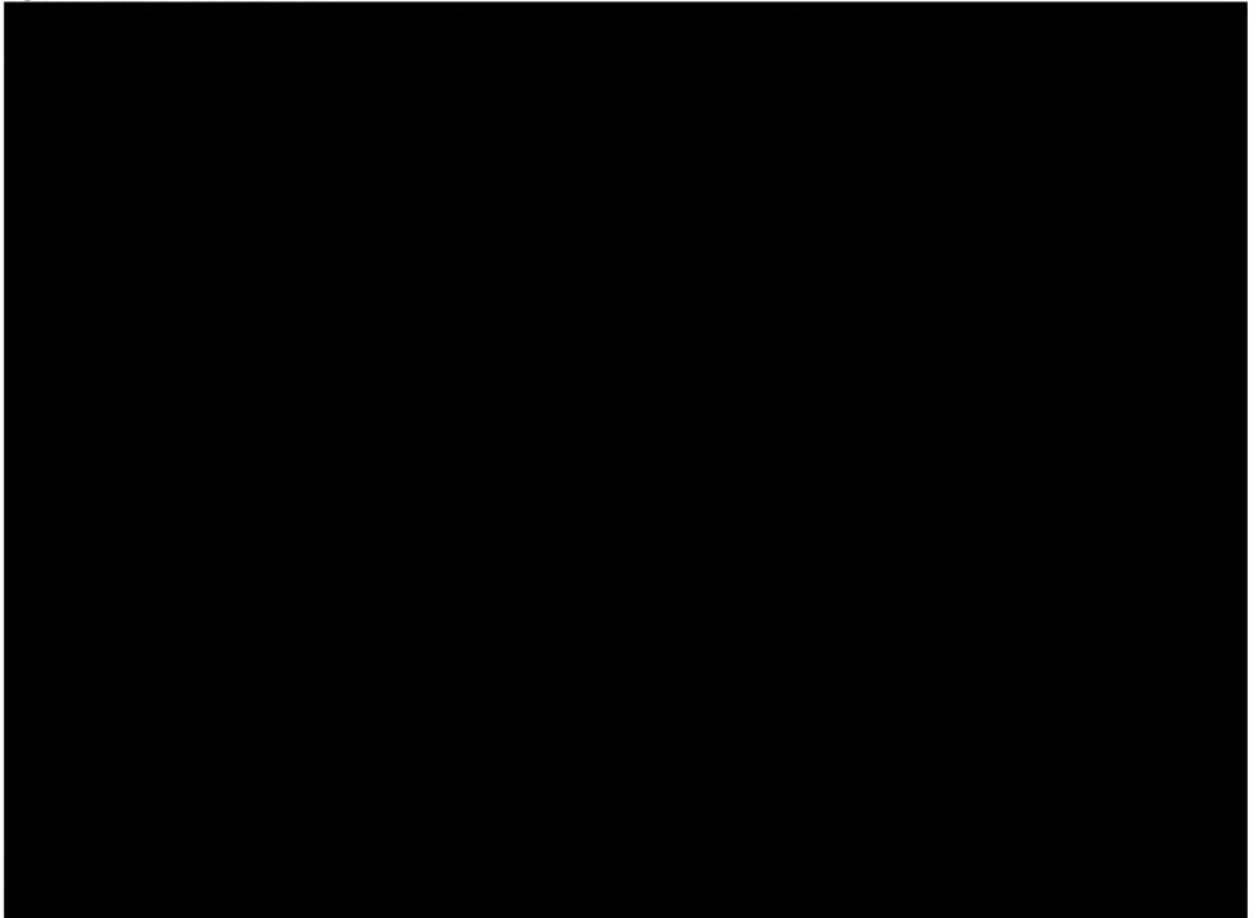


**INFC Summary – Waterfront Toronto Investment Real estate and Quayside (IREQ) Board Committee Meeting of April 4<sup>th</sup>, 2019 9:00AM – 12:00PM**

**In attendance:**

- The WT Board IREQ committee met April 4<sup>th</sup> from 9am -12pm. IREQ met in closed session. The final 1/2hr of which was in camera (committee members only).
- IREQ was co-Chaired by federal appointee Mazyar Mortazavi (in person) and City appointee Susie Henderson (via videoconference).
- This meeting of the committee was the first with new provincial board appointees Chris Voutsinas (President, Capital Value & Income Corp); and Andrew MacLeod (President & CEO, Post Media)
- Board Chair Stephen Diamond, City appointee and Councilor Joe Kressy, and WT interim President & CEO Michael Nobrega were also in attendance.
- WT staff in attendance where Chief Development Officer Meg Davis; Julius Gombos, Senior VP, Project Delivery; Kristina Verner, VP Innovation, Sustainability and Prosperity; Cameron MacKay, VP Strategic Communications and engagements; and Ian Beverly, General Counsel and Corporate Secretary
- All the aforementioned attendees actively participated in the meeting, which was convened to obtain a detailed understanding of the Quayside MIDP Evaluation Framework, including relevant context, timing, process and communications strategy.

**Highlights from the discussion:**





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are withheld  
pursuant to paragraphs  
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of the *Access to Information Act***

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**WATERFRONT**Toronto

# Investment, Real Estate and Quayside Committee Meeting

THURSDAY, APRIL 4, 2019 FROM 9:00AM TO 12:00PM

WATERFRONT TORONTO

20 BAY STREET, SUITE 1310

TORONTO, ON, M5J 2N8





**WATERFRONT**Toronto

## Agenda and Meeting Book - Investment, Real Estate and Quayside Committee Meeting

9:00 a.m.	1. Motion to Approve Meeting Agenda	Approval	All
9:05 a.m.	2. Declaration of Conflicts of Interest	Declaration	All
9:10 a.m.	3. Consent Agenda	Approval	All
	Draft Minutes Open Session IREQ Committee meeting February 28, 2019 - Page 3		
9:15 a.m.	4. Motion to go into Closed Session	Approval	All
	<b>Closed Session Agenda</b> The Committee will discuss the matters outlined in Items 5, 6 and 7 being Master Innovation and Development Plan (MIDP) Evaluation Framework, consideration of the draft minutes of the Closed Session of the February 28, 2019 IREQ meeting and Committee Chair Discussion, respectively, in a Closed Session as permitted by By-Law No. 2 of the Corporation. The exception relied for the discussion for item 5 in Closed Session is Section 6.1.1(I), for item 6 is provided in item 3a of this agenda and for item 7 in Closed Session is Section 6.1.1(b) of By-Law No. 2. The Committee will continue in Open Session at the end of the Closed Session to discuss and vote on any resolutions pertaining to the Closed Session.		
9:15 a.m.	5. Master Innovation and Development Plan (MIDP) Evaluation Framework	Information	M. Davis/Others
	Cover Sheet - Page 6		
	Evaluation Framework Presentation Overview - Page 7		
11:25 a.m.	6. Draft Minutes of the Closed Session February 28, 2019 Meeting	Approval	All
	Draft Minutes - Closed Session IREQ Committee meeting February 28, 2019 - Page 8		
11:30 a.m.	7. Committee Chair Discussion	Information	All
11:50 a.m.	8. Motion to go into Open Session	Approval	All
	<b>Public Session Agenda</b>		
11:55 a.m.	9. Resolutions Arising from the Closed Session	Approval	All
	Resolution(s) Arising from the Closed Session - Page 10		
12:00 p.m.	10. Motion to Adjourn the Meeting	Approval	All



**MINUTES of the OPEN SESSION of the  
Investment, Real Estate and Quayside Committee Meeting of the  
Toronto Waterfront Revitalization Corporation  
20 Bay Street, Suite 1310, Toronto, Ontario  
held on Thursday, February 28, 2019 at 2:00 p.m.**

**PRESENT:** Mazyar Mortazavi, Co-Chair  
Steve Diamond

**ABSENT:** Susie Henderson, Co-Chair

**ATTENDANCE WATERFRONT TORONTO**  
Michael Nobrega (Interim CEO, Waterfront Toronto)  
Meg Davis (Chief Development Officer)  
David Kusturin (Chief Project Officer)  
Chris Glaisek (Chief Planning and Design Officer)  
Lisa Taylor (Chief Financial Officer)  
Julius Gombos (SVP Project Delivery)  
Leslie Gash (SVP Development)  
Erik Cunningham (Director Development)  
Kristina Verner (VP Innovation, Sustainability and Prosperity)  
Pina Mallozzi (VP, Planning and Design)  
Aaron Barter (Innovation and Sustainability Manager)  
Rei Tasaka (Design Project Manager)  
Sumeet Ahluwalia (Development Manager)  
Jed Kilbourn (Director, Development)  
Kevin Greene (Project Management Director)  
Ian Beverley (General Counsel)  
Catherine Murray (Senior Legal Counsel)  
Kathleen Niccols (Governance Consultant)  
Aina Adeleye (Board Administrator and Legal Assistant)

Also, in attendance for all or part of the meeting were Joe Cressy and Sevaun Palvetzian, Directors, Waterfront Toronto.

Mazyar Mortazavi acted as Chair of the meeting. Mazyar Mortazavi called the meeting to order at 2:08 p.m. and, with the consent of Investment, Real Estate and Quayside Committee ("IREQ" or the "Committee") members, appointed Ian Beverley to act as Secretary of the meeting.

Mazyar Mortazavi declared that a quorum of Committee Members was present and that with notice of the meeting having been duly sent to all Committee Members in accordance with the Corporation's By-laws, the meeting was duly called and regularly constituted for the transaction of business.



**1. Meeting Agenda**

**ON MOTION** duly made by Steve Diamond, seconded by Mazyar Mortazavi and carried, it was **RESOLVED** that the Meeting Agenda be approved as presented.

**2. Declaration of Conflicts of Interest**

There were no conflicts of interest declared.

**3. Consent Agenda - Minutes of the Committee meeting held on January 17, 2019.**

**ON MOTION** duly made by Steve Diamond and seconded by Mazyar Mortazavi and carried, it was **RESOLVED** that the Minutes of the IREQ Committee meeting held on January 17, 2019 were approved as tabled.

The Committee received the Development Projects Dashboard for information.

**4. Closed Session**

**ON MOTION** duly made by Stephen Diamond, seconded by Mazyar Mortazavi and carried, the Committee **RESOLVED** to go into a Closed Session to discuss agenda items 5, 6, 7, 8 and 9, as permitted by By-Law No. 2 of the Corporation. The exception relied on for the discussion of items 5, 6 and 7 in Closed Session is Section 6.1.1(l) (discussion will concern a position, plan, procedure, criteria or instruction to be applied to any negotiations carried on or to be carried on by or on behalf of the Corporation), for item 8 is contained in the minutes of the Open Session of the January 17, 2019 and item 9 in Closed Session is Section 6.1.1(b) (personal matters about an identifiable individual, including employees of the Corporation) of By-Law No. 2.

Mazyar Mortazavi indicated to members of the public present that it was in order for them to depart the meeting. The meeting continued in Closed Session.

**5. Master Innovation and Development Plan (MIDP) Oversight**

**6. MIDP Evaluation Framework**

**7. MIDP Pillars**

**8. Draft Minutes of the Closed Session of January 17, 2019**

**9. Committee Chair Discussion**

**10. Motion to Resume Open Session**

In accordance with By-Law No. 2 of the Corporation, and the Closed Session discussion having been completed, **ON MOTION** duly made by Stephen Diamond and seconded by Mazyar Mortazavi and carried, the Committee **RESOLVED** to go into Open Session.



**11. Resolutions Arising from the Closed Session (if any)**

**ON MOTION** duly made by Stephen Diamond, seconded by Mazyar Mortazavi and carried, it was **RESOLVED** that the Minutes of the Closed Session of the IREQ Committee meeting held on January 17, 2019 be approved as tabled.

**12. Termination of the Meeting**

There being no further business, **ON MOTION**, duly made by Stephen Diamond, seconded by Mazyar Mortazavi and carried, it was **RESOLVED** that the meeting be adjourned at 4:46 p.m. local time.

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Chair

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Secretary



**Pages 447-450  
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de la *loi sur l'accès à l'information***



**ON MOTION** duly made by [●] and seconded by [●] and carried, it was **RESOLVED** that the Minutes of the Closed Session of the IREQ Committee meeting held on February 28, 2019 be approved as tabled.



**Pages 452-465  
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of the *Access to Information Act***

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CBC.ca: Toronto | Toronto

# 'Who owns the data?': Questions emerge at Sidewalk Labs consultations about 1,500-page proposal

At a public consultation around Sidewalk Labs' waterfront development proposal on Wednesday night, one message emerged loud and clear: nothing is set in stone - yet.

Dozens gathered at the Radisson Admiral Hotel on Queens Quay West to listen, learn, and voice their concerns about a 1,500-page plan released last month detailing the proposal by the subsidiary of Google parent company Alphabet Inc.

**Waterfront Toronto** partnered with Sidewalk Labs in 2017 to reinvigorate a section of the harbourfront east of the downtown near the Portlands. The company's vision: a high-tech city-within-a-city, complete with affordable apartments, renewable energy and smart technology.

But the plan, for a 190-acre so-called Idea District, is exponentially larger than the 12-acre proposal the company had been tasked with developing.

And it's prompted a host of concerns about just how the waterfront development will be governed, what it means for the future of affordable housing and transit, and just who will own the data produced at the **Quayside** site.

'We are very concerned'

Thorben Wieditz, an organizer with Block Sidewalk, is among those sounding the alarm about the proposed development.

"We are very concerned," he said. "We are being asked to comment and leave feedback on 1,500 pages of a document that most members of the public have no time to actually digest and read."

Among Wieditz's biggest concerns: the mushrooming scale of the project.

"They have come up with project that no one in Toronto has asked them to come up with," he said. "It's very concerning to have a private vendor come in telling us how we should govern ourselves."

And if a 1,500 page proposal is tough for the public to digest, they're not alone, says **Waterfront Toronto's** chief development officer Meg Davis.

"We have not read it all yet, so we're still digesting," Davis said, adding it will take until at least late 2019 or even early 2020 before the **Waterfront Toronto** board makes a decision on whether to approve all or part of the proposal.

'No green lights so far'

"No green lights so far," she said. "We are literally just absorbing, listening to the public, talking to our government partners, and then we'll do our evaluation."

"I'm not hearing things like 'open source' - Philip Chatterton

Sidewalk Labs' director of public realm development Jesse Shapins said the reason for the lengthy plan comes to down to the fact that it's a "comprehensive approach to really looking at all facets of an urban development and a neighbourhood."

Shapins adds that Sidewalk Labs has an office in the waterfront area where members of the public can come and learn more by looking at the model of the proposal that's been set up there.

And while he knows there are concerns about the project, he says it's encouraging to see how many people have been attending the consultations, saying **Waterfront Toronto** is doing "important work" in ensuring the public has a chance to weigh in on the plans.

Philip Chatterton was one such resident.

Chatterton, who lives on Toronto Island, works in the tech industry and is excited about some of the plan.

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Big questions loom

But he's also concerned.

"I'm not hearing things like 'open source,'" he said. "It's a lot of ownership around the technology, but not really, 'How can the community get involved in the technology and helping businesses get involved?'"

The big question, he says, is "Who owns the data?"

That's something on which **Waterfront Toronto** board member Coun. Joe Cressy says the city needs to develop its own policy.

"As it relates to creating a new digital framework in **smart cities**, that's something we at the city really need to create a governance model around ... as opposed to having Sidewalk, a Google affiliate, design it for us," Cressy said.

"We chose an innovation partner to think differently and come up with new ideas so that's controversial... but I have full confidence in the city of Toronto to rise to the challenge of evaluating this project and determining what's in the best interest of the city."

Sidewalk Labs says they're open to feedback and the consultations mark the beginning of a long approval process. The next consultation happens Saturday at George Brown College.

Photo: Dozens gathered at the Radisson Admiral Hotel on Queens Quay West to listen, learn, and voice their concerns about a 1,500-page plan released last month detailing the proposal by the subsidiary of Google parent company Alphabet Inc.

Credit: Taylor Simmons/CBC

Url: <https://www.cbc.ca/news/canada/toronto/who-owns-the-data-questions-emerge-at-sidewalk-labs-consultations-about-1-500-page-proposal-1.5215990>



**Debrief of July 17 Waterfront Toronto (WT) Public Consultation on Draft MIDP**

Glenn,

Below are highlights from the July 17<sup>th</sup> ~~Nancy and I attended the second of WT's Public Consultation Sessions;~~

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- Format was an opening and closing plenary with four concurrent break-out sessions in between.

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**Annex - Flash summary of views from break-outs at July 17, 2019 WT Public Consultation session:**

- **Break-out #1 (Development Plans):** Need to parse the connections and similarities between what's being proposed for Quayside versus broader lands. Concerns expressed over the impact the development may have on property values; the potential for the Google HQ to drain talent away from the rest of the local tech sector.
- **Break-out #2 (Pillars):** Some positive reaction to the Mobility/Sustainability innovations, but many questions as to how they would integrate with existing municipal infrastructure, and how the associated governance entities would work. On housing there are questions/concerns over viability of the affordability proposals. Participants registered the need to source affordability in perpetuity. While there was positive reaction to the Public realm innovations, there was skepticism over whether they could withstand Canada's winter, and concerns were registered over their long-term upkeep and maintenance.
- **Break-out #3 (Partnership):** Concerns expressed about overreach beyond the RFP/12 acres, and the need to scale-back the project to what can be done within existing frameworks (i.e without any leg/reg adjustments). Participants highlighted the need for a clear public interest mechanism that would demonstrate how citizens would benefit. Strong skepticism was expressed over the rationale for creating a Public Administrator and associated governance entities and the risk of duplicating existing City processes. Further skepticism was registered as to SWL's intent in proposing these. On land valuation, participants were keenly interested in knowing the dollar-value of the lands/public resource implicated in the project.
- **Break-out #4 (Digital Innovation and IP)** the view was surfaced that it was essential that profit gains from IP sharing go directly into waterfront Revitalization. There were also concerns that the proposed IP terms were not favorable. Familiar concerns were registered over passive data collection, personal data collection and its role in SWL's business model. Participants were more comfortable a public entity collecting data b=versus a private company. Whether Torontonians want data collected at all in their City is the fundamental question to answer, not whether they want it for this particular project. Participants also highlighted the need for there to be clear exit strategies for WT on the data /digital innovation proposals in the project.